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Catalogue
1952

1642 - 1972

R. Zweifel 1952

1

Catalogue

Feb. 1

1.5 mi. N, 2.7 mi. E Santa Susana, Ventura County, Calif.

1642 *Gerrhonotus multicarinatus webbii*

Mulholland Drive, 1 mi. W Topanga Canyon Road, Santa Monica Mtns, Los Angeles Co., Calif.

Feb. 2

1643 *Uta stansburiana hesperis*

1644 " " " (skeletonized)

Mulholland Dr., 1 mi E Topanga Canyon Road, Santa Monica Mtns, Los Angeles Co., Calif.

Feb. 3

1645 *Eumeces skiltonianus*

1646 *Gerrhonotus multicarinatus webbii* (both skeletonized)

Dixie Canyon, Santa Monica Mtns, Los Angeles Co., Calif.

Feb. 4

1647 *Ensatina e. eschscholtzii*

1648 " " "

1649 " " "

R. Zweifel 1952

2

Catalogue

Feb. 6

417 mi. SE Irvine Park, Orange County, Calif.

1650	Batrachoseps attenuatus	
1651	"	"
1652	"	"
1653	"	"
1654	"	"
1655	"	"
1656	"	"
1657	"	"
1658	"	"
1659	"	"
1660	"	"
1661	"	"
1662	"	"
1663	"	"
1664	"	"
1665	"	"
1666	"	"
1667	"	"
1668	"	"
1669	"	"
1670	"	"
1671	"	"
1672	"	"
1673	"	"

R. Zweifel 1952 3

Catalogue

Feb. 6

13.3 mi. SE Irvine Park, Orange County, Calif.

1674 Aneides lugubris
1675 Batrachoseps attenuatus pacificus
1676 " "
1677 " "
1678 " "
1679 " "

Feb. 13

¼ mi. NW Searsville Lake Dam, San Mateo County, Calif.

1680 Diadophis amabilis

2 mi. S Woodside, San Mateo Co., Calif.

1681 Aneides flavipunctatus niger
1682 " "
1683 " "
1683a Ensatina eschscholtzii

Feb. 22, 1952

5¼ mi (airline) ESE Kenwood, Sonoma Co., Calif.

1684 Bufo boreas halophilus (skeletonized)

R. Zweifel 1952 4

Catalogue

Feb.

12 mi NE Tucson, Pima Co, Ariz.

1685 Cnemidophorus tigris (coll W. Woodin)

March 1

1.6 mi. (by road) W De Sabla,
Butte Co., Calif.

1686 Rana boylii boylii
1687 " " "
1688 " " "
1689 " " "

March 2

4.1 mi. SW Mooretown, 2200',
Butte County, Calif.

1690 Batrachoseps attenuatus
1691 " "
1692 " "
1693 " "
1694 " "
1695 Thamnophis sirtalis fitchi
1696 " " "

7 mi. E Oroville, Butte Co., Calif.

1692 Eumeces skiltonianus

R. Zweifel 1952 5

Catalogue March 2

9 mi. N Bangor, Butte Co., Calif.

1693 Hesperotus multicarinatoarcuatus

2.7 mi. NE Bangor, Butte Co., Calif.

1694 Cumeces skiltonianus

9.1 mi. NE Bangor, Butte Co., Calif.

1695 Rana boylii boylii

2.6 mi ENE Rackerby, 1470',
Yuba Co., Calif.

1696 Rana boylii boylii
1697 " " "
1698 " " "
1699 " " "
1700 " " "
1701 " " "
1702 " " "
1703 " " "
1704 " " "
1705 " " "

March 22

No locality data

1706 Rana pipiens (skeletonized)

R. Zweifel 1952 6

Catalogue

May. 23

Robert L. Stevenson Home, Mt. St Helena
Napa Co., Calif.

1707 Aneides flavipunctatus
1708 " "
1709 " "
1710 " "

2 mi. NW Calistoga 610' Napa Co., Calif.
#45

1711 Aneides flavipunctatus
1712 " "
1713 " "
1714 " "
1715 " "
1716 " "
1717 " "
1718 " "
1719 " "
1720 " "
1721 " "
1722 " "
1723 " "
1724 " "
1725 " "
1726 Aneides lugubris
1727 " "
1728 " "
1729 " "
1730 " "

R. Zweifel 1952

Catalogue May. 29

2 mi NW NE Calistoga, 610', Napa Co., Calif.

1731 Helminthoglypta multicarinata
1732 Eumecas skiltonianus
1733 " "
1734 " "
1735 " "
1736 " "
1737 " "
1738 Hygiena tergata nuchulata

½ mi W Skaggs Springs, Sonoma Co., Calif.

1739 Eumecas skiltonianus
1740 Diadophis amabilis occidentalis
1741 " " "

2.9 mi. W Skaggs Springs, Sonoma Co., Calif.

1742 Taricha rivularis
1743 Diadophis amabilis occidentalis

April 1

2¼ mi. SE Sunol, 300', Alameda Co., Calif
(col. S.K. Carmichael)

1744 Diadophis amabilis

R. Zweifel 1952

Catalogue

U.C. Campus, Berkeley, Alameda Co., Calif.

April 5

1745 Dendroica amabilis amabilis

(coll. Ken Countryman)

April 4

Arroyo Mocho, 1500'; 9.5 mi SE Livermore,
Alameda Co., Calif.

1746 Rana b. boylii

1747 " " "

1748 " " "

1749 " " "

1750 " " "

1751 " " "

1752 " " "

1753 " " "

1754 Coluber constrictor mormon

April 12, 1952

Waddell Creek, Santa Cruz Co., Calif.

1755 Rana aurora

1756 Rana boylii

1757 Ameiurus [illegible] nigr

1758 " " "

1759 " " "

1760 " " "

1761 " " "

1762 " " "

R. Zweifel 1952 3

Catalogue

Waddell Creek, Santa Cruz Co., Calif.
April 12

59649
1763 Dicamptodon ensatus
1764 Contia tenuis (col. N. Jordan)

Strawberry Canyon, Berkeley, Alameda Co., Calif.

1765 Diadophis amabilis and amabilis (col. Ken Carlyon)

Mar. 12, 1952

Mulholland Drive, 1 mi. W Beverly Hills,
Santa Monica Mtns., Los Angeles Co., Calif.

1766 Diadophis amabilis modestus (col. B. Anderson)
1767 " " "

R. Zweifel 1952 10

Catalogue

April 26

Pinehurst, Fresno Co., Calif.

1768 Scelaporus occidentalis
1769 " "
1770 " "
1771 " "
1772 Gerrhonotus multicarinatus

8.5 mi. NW Woodlake, Tulare Co., Calif.

1773 Eumeces gilberti
1774 " "
1775 " " — April 27
1776 " "
1777 " "
1778 " "
1779 Coluber lateralis
1779a } Rana boylii boylii
1779b }
8.7 mi (by road) ENE of Springville on road to Camp Wishon, Tulare Co., Calif.

1780 Rana boylii boylii
1781 " " "
1782 " " "
1783 " " "
1784 " " "
1785 " " "
1786 " " "

R. Zweifel 1952 11

Catalogue

Camp Wishon, Tulare Co., Calif.

April 27

1787 Triturus torosus sierras
1788 " " "
1789 " " "
1790 " " "
1791 Rana boylii boylii

5 mi ENE Springville, Tulare Co., Calif.

1792 Rana boylii boylii
1793 " " "
1794 " " "
1795 " " "
1796 " " "

April 28

2.3 mi. SE White River, Tulare Co., Calif.

1797 Scaloporus occidentalis
1798 Uta stansburiana
1799 Eumeces gilberti
1800 " "

3.3 mi. ENE Woody, Kern Co., Calif.

1801 Eumeces gilberti
1802 Thamnophis elegans couchii
1803 Diadophis amabilis

R. Zweifel 1952
12

Catalogue

April 28

1 mi. NE Woody, Kern Co., Calif.

1804 Eumeces gilberti

April 29

Stock Creek, 1500', Kern River Canyon, 18 mi. ENE Bakersfield, Kern Co., Calif.

1805 Ensatina eschscholtzii

Cow Flat Creek, 1800', Kern River Canyon, 20 mi ENE Bakersfield, Kern Co., Calif.

1806 Rana boylii boylii
1807 " "
1808 " "
1809 Diadophis amabilis

Clear Ck, Hobo Hot Springs, Kern Co., Calif.

1810 Rana boylii boylii
1811 Gerrhonotus multicarinatus
1812 Eumeces gilberti
1813 " "
1814 Hyla regilla
1815 Uta stansburiana

R. Zweifel 1952-3

Catalogue

Ago April 29

Bodfish Creek, 2 mi ESE Bodfish,
Kern County, Calif.

1816 Cnemidophorus tigris

April 30

1817 Xantusia vigilis
1818 X " "

Kelso Creek Valley, 2.5 mi. SE Weldon,
Kern Co., Calif.

1819 Uta stansburiana

Kelso Creek Valley, 9.9 mi (by road)
SSE Weldon, Kern Co., Calif.

1820 Cnemidophorus tigris

Kelso Creek Valley, 15.1 mi (by road)
SSE Weldon, Kern Co., Calif.

1821 Sceloporus occidentalis
1822 " "
1823 " "

2 mi WNW Doe Spring, 4800'; Kern Co., Calif.

1824 Sceloporus occidentalis

R. Zweifel 14

Catalogue

April 30, 1952

Jawbone Canyon 2800', 8 mi SW Ricardo
Kern Co., Calif.

1825 Crotalus viridis
1826 Uta stansburiana

May 1, 1952

1827 Cnemidophorus tigris
1828 Salvadora mageter
1829 Pituophis catenifer deserticola

3 mi. SW Cameron, Kern Co., Calif.

1830 Uta stansburiana

3½ mi SW Cameron, Kern Co., Calif.

1831 Salvadora occidentalis
1832 " "

Oak Creek Pass, 4.8 mi S Tehachapi,
Kern Co., Calif.

1833 Phrynosoma coronatum

N. end Cummings Valley, 7 mi WSW
Tehachapi, Kern Co., Calif.

1834 Uta stansburiana

R. Zweifel

Catalogue

May 1, 1952

Brite Valley, 4 mi WSW Tehachapi,
Kern Co., Calif.

1835 Pituophis catenifer

Tehachapi Creek, 6 mi. NW Tehachapi
Kern Co., Calif.

1836 Crotalus viridis
1837 Rana boylii boylii
1838 Rana " "

Caliente Creek, 6 mi. ESE Caliente,
Kern Co., Calif

May 2, 1952

1839 Rana boylii boylii
1840 " " "
1841 " " "
1842 " " "
1843 " " "
1844 " " "
1845 " " "
1846 Scaloporus occidentalis
1847 Gerrhonotus multicarinatus

0.6 mi SE Rowen, 2600', Kern Co, Calif.

1848 Eumeces gilberti

R. Zweifel

Catalogue

May 2, 1952

North side Bear Mtn, 3600', Kern Co, Calif.

1849 Eumecea gilberti

North side Bear Mtn, 4500', Kern Co, Calif.

1850 Eumecea gilberti

North side Bear Mtn, Kern Co, Calif.

1851 Eumecea gilberti

May 3, 1952

Frenchmans Flat, Ridge Route, Los Angeles County, Calif.

1852 Uta stansburiana

May 4, 1952

Fort Tejon, Kern Co, Calif.

1853 Sceloporus occidentalis

1854 " "

1855 " "

1856 " "

1857 Eumecea gilberti

Zweifel

Catalogue

May 4, 1958

2.3 mi. SE Taft, Kern Co., Calif.

1858 Cnemidophorus tigris

May 13

0.2 mi. N Paicines, San Benito Co. Calif.
(coll. S.C. Carnie)

1859 Anniella pulchra

1860 Diadophis amabilis

San Diego, San Diego Co., Calif.
(from C.E. Shaw)

1861 Diadophis amabilis similis

1862 " " "

1863 " " "

Forest Knolls, Marin Co. Calif.

1864 Pituophis catenifer (skeletonized) S-V 97cm
S-V 97cm (coll. O. Pfeiffer)

H. Zweifel 1952 18

Catalogue

May 30

Butte Meadows, Butte Co., Calif.

1865 Ensatina eschscholtzii platensis
1866 Hyla regilla
1867 Gastrophryne olivacea
1868 " "
1869 " "
1870 " "
1871 Thamnophis elegans

May 31,

Seneca, Plumas Co., Calif.

1872 Sceloporus graciosus
1873 Sceloporus occidentalis
1874 " "
1875 Thamnophis elegans vaccki
1876 " " "

0.6 mi S Greenville, Plumas Co., Calif.

1877 Ambystoma macrodactylum (larva)
1878 " " "
1879 " " "
1880 " " "
1881 " " "
1882 " " "

1.6 mi W Susanville, Lassen Co., Calif.

1883 Sceloporus occidentalis

R. Zoology

Catalogue

1952

May 31

5.5 mi N McKittrick Park, Fresno Co. Calif.

1884 Rana boylii boylii (obliterated)

1885 " " "

1886 " " "

1887 " " "

1888 " " "

1889 " " "

1890 " " "

1891 " " "

1892 " " "

1893 " " "

1894 " " "

1895 " " "

1896 " " "

1897 " " "

1898 " " "

1899 " " "

1900 " " "

1901 " " "

1902 " " "

1903 " " "

1904 " " "

1905 " " "

1906 " " "

1907 " " "

1908 " " "

1909 " " "

1910 " " "

1911 " " "

R. Zweifel 1952

Catalogue 20

June 1

Grass Lake, 7750'; El Dorado Co., Calif.

1912 Hyla regilla
1913 " "

Upper Truckee River, 3½ mi. ESE Phillips
El Dorado Co., Calif.

1914 Rana boylii aurora

½ mi. W Kyburz, El Dorado Co., Calif.

1915 Coluber constrictor mormon

Webber Ck., 2.2 mi. WSW Placerville,
El Dorado Co., Calif.

1916 Rana boylii boylii
1917 " " "
1918 " " "
1919 " " "

June 8, 1952

Gay Hen Creek, 3 mi. NW Hobart Mills,
Nevada Co., Calif.

1920 Rana boylii aurora (coll S. Tarby)
(skeletonized)

R. Zweifel Catalogue June 1952

San Diego, San Diego Co., Calif.

1921 Diadophis amabilis similis } from Chuck Shaw
1922 " " "

June 15

Camp Connell, 4800', Calaveras Co., Calif.

1923 Rana boylii aerina
1924 " " "
1925 " " "
1926 " " "
1927 " " "
1928 " " "
1929 " " "

Big Meadows, 6500', Calaveras Co., Calif.

1930 Rana boylii aerina
1931 " " "

Stonewall Peak, Cuyamaca Rancho State Park, San Diego Co., Calif.

June 16, 1952

1932 Crotalus mitchelli

June 20, 1952

1933 Salvadora grahamiae

P. Zweifel 1952 22

Catalogue

Sentenac Canyon, 1.7 mi. ENE Scissors Crossing,
San Diego Co., Calif.
June 20, 1952

1934 Tamiopeltis getulus californiae

Yaqui Pass, 1 mi. E Yaqui Well, San Diego
Co., Calif.

1935 Phyllorhynchus decurtatus perkinsi

Yaqui Pass, 2.1 mi ENE Yaqui Well,
San Diego Co., Calif.

1936 Phyllorhynchus decurtatus perkinsi

5.5 mi NE Yaqui Well, San Diego Co., Calif

1937 Arizona elegans eburnata

3 mi S Borrego Springs, San Diego Co., Calif

1938 Coleonyx variegatus variegatus

Yaqui Pass, 3.4 mi. ENE Yaqui Well,
San Diego Co., Calif.

1939 Chionactis occipitalis annulata

R. Zweifel 1952 23

Catalogue

2.6 mi. W Yaqui Well, San Diego Co., Calif.

1940 Arizona elegans eburnata

" June 23, 19[illegible]

8.5 mi. NNW Descanso, San Diego Co., Calif.

1941 Masticophis lateralis

Boulder Ck, 7.5 mi NNW Descanso,
San Diego Co., Calif.

1942 Tantilla torquata

1943 " "

2.7 mi W Yaqui Well, San Diego Co., Calif.

1944 Coleonyx variegatus

0.5 mi E Yaqui Well, San Diego Co, Calif.

1945 Chionactis occipitalis annulata

3.2 mi. ENE Yaqui Well, San Diego Co.,
Calif.

1946 Hypsiglena ochrorhyncha deserticola

P. Juveniles 1952 24

Catalogue

June 23, 1950

3.5 mi ENE Yaqui Well, San Diego Co., Calif.

1947 Coleonyx variegatus

Borego, San Diego Co., Calif.

1948 Chionactis occipitalis annulata

2½ mi. SSE Borego Springs, San Diego Co., Calif.

1949 Phyllorhynchus decurtatus perkinsi

June 26, 1952

Los Caballos Camp, Cuyamaca Rancho State Park, San Diego Co., Calif.

1950 Pituophis catenifer annectens

1951 " " "

June 27, 1952

Paso Picacho Camp, Cuyamaca Rancho State Park, San Diego Co., Calif.

1952 Tamnophis getulus californis

P. Zweifel

Catalogue

Camp Cuyamaca, Cuyamaca Rancho State Park, San Diego Co., Calif.

June 30, 1952

1953 Phrynosoma coronatum

Sweetwater River, 4.7 mi. NNE Descanso, San Diego Co., Calif.

1954 Thamnophis elegans hammondii

1.8 mi. ENE Yaqui Well, San Diego Co., Calif.

1955 Coleonyx variegatus

2.1 mi. ENE Banner, San Diego Co., Calif.

1956 Rhinocheilus lecontei lecontei

July 3, 1952

Pass Picnic Camp, 4800', Cuyamaca Rancho State Park, San Diego Co., Calif.

1957 Coluber constrictor mormon

July 6, 1952

Stonewall Peak, 4900', Cuyamaca Rancho State Park, San Diego Co., Calif.

1958 Crotalus viridis helleri.

Zonifel 1952 26

Catalogue

Paso Picacho Camp, 960', Cuyamaca Rancho State Park, San Diego Co., Calif.

July 10

1959 Colaber conditrictor mormon

Descanso, San Diego Co., Calif.

July 26

1960 Thamnophis elegans hammondi

2½ mi. NE Descanso, 3500', San Diego Co., Calif.

Aug. 2

1961 Hypsiglena torquata klauberi

1962 Salvadora hexalepis virgultea

2 mi. SE Julian, 4500', San Diego Co., Calif.

Aug. 2

1963 Tamnophis zonata pulchra

2 mi WSW Descanso, 3200', San Diego Co., Calif

Aug. 5

1964 Tamnophis getulus californicus

Paso Picacho Camp, 4500', Cuyamaca Rancho State Park, San Diego Co., Calif.

Aug. 8

1965 Tamnophis zonata pulchra

Aug. 15

1966 Masticophis lateralis

R. Zweifel 1952 27

Catalogue

Middle Peak, 5400', Cuyamaca Rancho
State Park, San Diego Co., Calif
Aug. 21

1967 Diadophis amabilis similis

Middle Peak, 5700', Cuyamaca Rancho
State Park, San Diego Co., Calif.
Aug 27

1968 Tamnophis Zonata pulchra

Jewel Lake, Tilden Park, Contra Costa Co. Calif.
July, 1952

1969 Diadophis amabilis amabilis (coll M. Stollins)

Coon Hollow, 5300', 1 mi S, 5 mi E
Bull Meadows, Butte Co. Calif
Oct. 14, 1952

1970 Rana aurora cascadae (skeletonized)
1971 " " " (")
1972 " " " (")

Journal
1952

Ventura Co., Calif.

This morning I drove over Santa Susana Pass and up the road which begins 2.7 mi. E Santa Susana, 1.5 mi N and 2.7 mi E Santa ~~Susana~~ Susana I caught an Eumeces skiltonianus and a Gerrhonotus multicarinatus webbii. Another skink was seen but escaped. The alligator lizard ate the skink which I captured.

The lizards were found beneath surface litter near a stream bottom on sagebrush covered hills. Hyla regilla were calling from the stream.

Feb. 2, 1952

Los Angeles Co., Calif.

Mulholland Drive, 1 mi. W Topanga Canyon Road, Santa Monica Mtns.

A few minutes collecting here yielded two Uta stansburiana hesperis and one Batrachoseps attenuatus. See species account on Uta.

R. Zweifel Feb 3, 1952 29

Mulholland Dr., 1 mi E Topanga Canyon Road, Santa Monica Mtns., L.A. Co.

A skink (C. skiltonianus) and a small Hesperhonotus multicarinatus webbii were found there.

Feb. 4, 1952

Topanga Canyon, Sta. Monica Mtns.

Searched about ½ mile of stream for Triturus without success. Stream very high, weather warm. No lizards seen, nor frogs.

Dixie Canyon, Sta. Monica Mtns.

Three aduet Ensatina found beneath surface litter in the canyon bottom. A few small Sceloporus out.

Feb. 6, 1952

Orange Co., Calif.

Today I visited the Santa Ana Mountains. At 4.7 mi. SE Irvine Park, a locality where both Batrachoseps have been taken, only B. attenuatus could be found. 24 were taken beneath rocks in the grassy area.

R. Zweifel Feb. 6, 1952

30

Orange Co. Calif.

At 19.3 mi. SE Irvine Park there is a pile of oak logs in which Batrachoseps pacificus has been taken. B. attenuatus has also been taken here. Today I found five B. pacificus and one large Aneides lugubris.

I looked for Triturus in the stream in Silverado Canyon, but could find none. The road in Trabuco canyon was washed out.

R. Zweifel

Mar. 1, 1952

31

Butte Co. Calif.

The Murray's, Bill Bramer and I left Berkeley at 10:15 AM and arrived in the vicinity of Chico about 3 ½ hours later. We drove to De Sabla by way of the road which parallels Butte Creek. The canyon has been cut through layers of alternating sandstone and conglomerate which outcrop in the form of ledges. There are many springs in these outcrops so that the whole region appears, at least at this season, rather well watered.

In the digger-pine, blue oak association 10.4 mi. SSW De Sabla we collected Sciurus occidentalis, 2 Eumeces skiltonianus and heard many Batrachoseps. The lizards were found beneath boards and logs.

Just south of the road junction at De Sabla, a road leads down into the canyon toward some mines. 1.6 mi. W De Sabla, on this road, 4 Rana k. boylii were collected (see species account). Hyla were breeding in a pond. Plant associates: Douglas Fir, Yellow pine, bay, canyon oak.

Mar. 2, 1952

R. Zweifel Mar. 2, 1952

Butte Co. Calif 32

bench mark) of 1072'. As late as 7:30 AM the air temperature was 2 or 3 degrees below freezing.

At an elevation of 2200', 4.1 mi SW Mooretown, in a meadow at the meeting of digger and yellow pine associations, we collected 2 Thamnophis sirtalis and an Hyla regilla. Sceloporus occidentalis and Batrachoseps attenuatus were also present.

5.4 mi E, 4.0 mi N Bangor, Butte Co.

~~5.8 mi E off Hackett, Butte Co.~~

10 Rana boylii of rather diverse coloration (see species account) were taken from a alder bordered stream here. Present on the nearby hillsides are yellow pine, bay, canyon oak and manzanita.

R. Zweifel

Mar. 23, 1952

33

Napa and Sonoma Counties,
California

Today with Keith and Cynthia Money I went into the north bay area to collect Aneides for Chuck Lowe.

Our first stop was at the Robert Louis Stevenson Home, Mt. St. Helena, Napa Co. One small Aneides flavipunctatus was found under a board on mud beside a water tank. We were leaving the area with just this one salamander when I turned over one last board in front of the house and found six flavis under it, an adult and five juveniles. This board seemed no different from dozens of others we had already turned within a few yards of the spot. The board was resting on leaf litter, as was another board under which one more juvenile was found. In addition to the eight Aneides captured here, three Ensatina were taken and many Batrachoseps seen.

Driving back toward Calistoga, at 2 mi. NW Calistoga, 610', Napa Co., we noticed a tree fallen on a grassy hillside and decided to investigate the logs and boards with the thought of possibly finding a ring-neck snake. When we left the area about 1½ hours later, we had taken 30 Aneides flavipunctatus, 12 A. lugubris, 1 Hyla regilla, 1 Sterhonotus multicarinatus, 7 Gonyaulax vibictoriana, 1 Diadophis and a Hypsiglena

The spot of collection is on a ridge

running about south-west. Here there are a few black oaks, digger pines and manzanitas, with a single scraggly douglas fir a couple of hundred yards up the ridge, but the aspect of the place is predominantly grassy.

The logs first investigated were digger pine, from a tree about 2½ feet in maximum diameter. A. flavipunctatus was abundantly found under the bark and within and beneath the logs. About half the flavis were collected here, the rest found beneath rocks on the adjacent hillside. Similarly, the less common A. lugubris was found both in the logs and under rocks. Both species of Aniedes were found beneath one rock. The snakes were found in the logs. Skinks were both in logs and under rocks (see specie accounts).

The land around here had evidently been cleared, judging both from the stumps about the hillside, and from a thick growth of douglas fir and oak surrounding a homesite about ¼ mile down the ridge.

From here we drove to the vicinity of Skaggs Springs, Sonoma County. At ½ mi. W Skaggs Springs we collected 8 Aniedes flavipunctatus, 1 Eumeces and 2 Diadophis. 2.9 mi. W Skaggs Springs we collected 6 flavis, 1 A. lugubris, 1 Trituerus

rivularis and I. Diadophis. All these were found under boards. Flavis we found both in wetter moist situations by a spring and on a comparatively dry hillside. The tritaenia, a gravid female, was under a board on a hillside about 200 feet from the stream. We did not investigate the stream for salamanders or frogs.

Journal

Keith and Cynthia Murray and I left Berkeley at 7:45 this morning and by lunch time were in the sierran foothills on State Highway 80. Throughout much of the foothill region the prominent trees are oaks — Q. douglasii and Q wislizenii — in an open to closed woodland. It looks much like typical digger-pine blue oak association but digger pines appear to be absent. We went from the oaks through chaparral (where blooming redbud was much in evidence) and met the yellow pines and incense cedars at 4000' without ever seeing digger pines.

Our intent was to go to Plume Lake, but the road was snowed in. We were told in General Grant Grove that there had been an eleven inch snowfall last night. Some places on this region the snow pack was 6-8' deep. There was a solid snow cover down to 5500', and scattered patches to 5000' elevation.

The weather seemed to be closing in, so we went off down the mountain and have camped along State Highway 65 between Auckland and Elderwood, Elevation 900'. Our campsite is in the oak-grassland region of the foothills.

Todays catch added up like this:
Harv 180 at 5000'; 7 Tuturns; near Pinehurst,

Journal

Fresno County, 6 Sceloporus occidentalis, 1 Eumeces gilberti and 1 Gerrhonotus multicarinatus (Hyla regilla and Batrachoseps also present); Cottonwood Creek between Auckland and Elderwood, Tulare Co, 3 Eumeces gilberti.

April 27, 1952

Last nights minimum temperature (with the thermometer on the ground in its box) was 45°F (8 °C.).

In a few minutes collecting before breakfast I caught 3 more skinks and a small striped racer. Keith also picked up a couple of skinks.

From this camp we drove south to Porterville and then east on Hwy 190 to Camp Wishon at the end of the road on the North Fork of the middle fork of the Tule River.

Two miles east of Springville Keith caught a Diadophis which unfortunately later escaped.

In a stream 8.7 mi by and ENE of Springville I caught 7 R. boylii and Keith a garter snake (couchii) and a skink. The yellow pine - mixed cedar forest is well developed downstream a little from where we collected, - it follows the Tule River canyon down. At the collecting site canyon oak, sycamore and bay are present with only two or three yellow pine nearby.

Journal

At Camp Wishon, 4000' elevation, Triturus were very abundant. We collected 93 and could have taken many more. This is in the yellow pine - oncens cedar forest. A single adult Rana boylii was found here. The main stream is still much too high to harbor any frogs.

Since it was cold and threatening rain at this altitude, we went back down the canyon to camp at Coffee Camp Ground on the Middle Fork of the Tule River. Only a few small R. boylii were taken here.

April 28, 1952

The rain caught up with us at about 2:30 this morning and made the night rather miserable for us. We broke camp early and went to Porterville for Breakfast. From Porterville we drove to White River, Glennville and Woody, camping in the oil fields between Woody and Bakersfield.

We tried frog collecting in a creek near Glennville but had no luck, the water being very high. The road over the Greenhorn Mountains was closed, hence the route via Woody. Young Cnemidophorus gilberti collected near White River, Tulare Co. and Woody, Kern Co, are of interest in that they show no subocular lateral influence, the tails being wholly blue.

I caught a Diadophis 3.3 mi ENE of Woody, a new southerly record for the Sierras. Batrachoseps also was taken here, as well as at other stations along our route from White River to Woody. Crotalus and Thamnophis s. couchii also were collected 3.3 mi ENE Woody.

April 29, 1952

The Kern River canyon for most of its lower region is of very arid aspect, the hillsides being at best covered with sparse digger pine and live oak. But where small creeks flow down to enter the Kern, there are local strips of mesic conditions on the mountainsides. At one of these, Stork Creek, 18 mi. ENE Bakersfield, I found an aduet Ensatina under a rock. At another, Cow Flat Creek, 20 mi. ENE Bakersfield, we collected a Diadophis, a Gerrhonotus multicarinatus, ? Rana boylii, ? Ensatina and several Batrachoseps. The Bats are of special interest in that they are the largest B. attenuatus I recall. Yet they still look very unlike B. pacificus.

We stopped for lunch at Hobo Hot Springs and then collected along Clear Creek. Hyla regilla, Eumeces gilberti, Uta, Gerrhonotus and Rana boylii. One of the skinks seems to be a gilberti x skiltonianus

intergrade, but it is too large to be sure of. Only one Rana was taken along the muddy, high creek.

Our camp for tonight was at Bodfish Creek, 2 mi ESE Bodfish. Ecologically, this is an area of great interest. Digger pine and blue oak are present with about the same density as in typical open pine-oak association. But interspersed with the pines and blue oaks are numerous scrubby live oaks, ceanothi, and a few junipers, the latter being more prominent toward the canyon mouth. The whole aspect is rather denser than the usual digger pine-blue oak woodland. Xantusia vigilis and Cnemidophorus tigris were found here.

April 30, 1952

Today we went from Bodfish to Weldon and over to the desert by way of Kelso Creek wash and Dove Springs to Red Rock Canyon. We went on to camp in Jawbone Canyon. 1

The entire route from Weldon to Ricardo is quite arid, Joshua trees being prominent along much of the way. Particularly noticeable were the large, dark Sceloporus occidentalis which frequent granite boulders throughout the Joshua tree area. Possibly these lizards are restricted

to such locations in the desert by a need for retreat from the heat even, that retreat being provided by deep joint cracks in the granite.

Our camp in Jawbone Canyon was at an elevation of about 2800' where the prominent plant in the wide, sandy canyon bottom is an Atriplex. Yucca drops out just below this point. Collected here were Crotalus viridis, Pituophis catenifer deserticola, Uta stansburiana stejnegeri, Sceloporus magister, Hyla regilla and Bufo boreas. Gambelia wislizenii and Xantusia vigilis were also seen. The amphibs were on muddy pools by the temporary stream in the wide canyon bottom. The Xantusia was under a piece of paper beneath an Atriplex. There are no tree yuccas near here, and very few other yuccas.

We tried night driving the road in Red Rock Canyon and the road to Randsburg, but turned up only one badly mangled sidewinder and quit after about 2 hours.

May 1, 1952

We broke camp late in the morning and drove to Mojave, and from there up Tehachapi Pass and into Cameron Valley. There is a road up Oak Creek, but we were stopped by a locked gate. We went over Oak Creek

Zweifel

Journal

May 1, 1952

Pase and on to Bear Valley where we tried to get permission to use their roads into the mountain, but were told to come back on June when the snakes would be out.

The region of our route up Cameron Valley and over Oak Creek Pass is a tribute to overgrazing. The erosion is extensive and when the wild-flowers are gone the aspect must be bleak indeed. About all there is to relieve the monotony of the grassy hills is an occasional oak-filled draw and a few patches of Joshua trees. Oak Creek along the upper reaches would be a good bet for Rana boylii if one could get past the locked gate.

At Bear Valley Ranch we were advised to beg a Mr. Jimmy Rogers (Will Rogers son) who had a ranch on the opposite (north) side of bear mountain and had a road (used now by loggers) into the timber. At the Rogers Ranch we met Mr Jimmy Blake, cousin of Rogers, who helped run the ranch. We were immediately granted permission to collect on his land and to use his road. His hospitality was put to an immediate test when we got stuck in a mud hole at the 4500 level and had to hike back 3 miles down

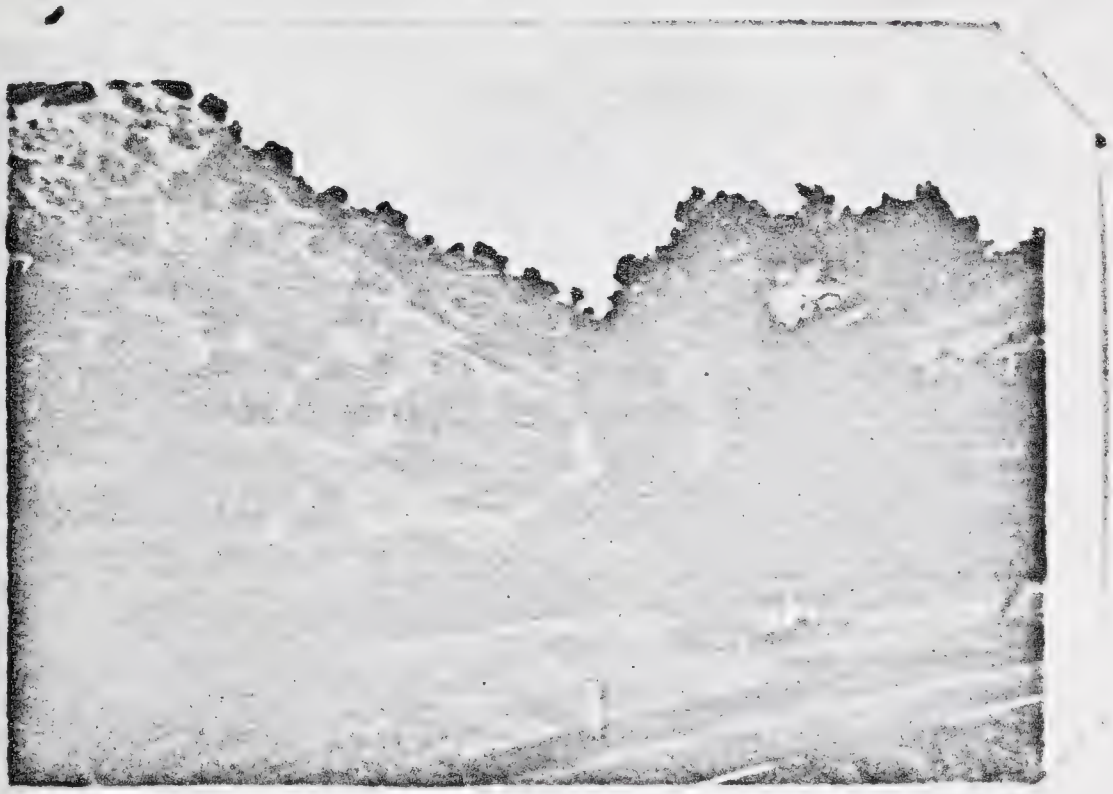
the mountain to get him to pull us out with his jeep. He refused rudely.

At the 4300' level there is a rather level area of grass and valley oak. Most of the rest of the way down the mountain was lightly wooded with digger pine, blue oak & live oak. Along the creek there was a much heavier stand of trees.

There appears to be a good stand of timber on the mountain, but we could not make it up there to the level of the timber.

By the time the car was out of the mud, it was after dark. Except for a few skunks picked up both driving up and hiking down the mountain, we collected little here.

We drove until about midnight, making camp at Frenchman Flat on the Ridge Route, Los Angeles County. There was a mixed chorus of Hyla regilla and H. cadaverina here. When heard together, the two calls are quite distinctive, Regilla with its dry Gabbi croak and cadaverina with its mono-syllabic "quack".



8.5 mi. NW Woodlake, Tulare Co., April 29.27
Cnemidophorus gilberti, Rana b. boylii, Masticophis lateralis
Blue oak, cottonwood.

Redfish Ck., 2 mi. ESE Redfish, Kern Co, Apr. 29

Bodfish Ck, 2mi ESE Bodfish, Kern Co, Apr. 29
Cnemidophorus tigris, Xantusia vigilis.
Digger pine, blue oak.

Jawbone canyon, 6 mi SW Ricardo, Kern Co, Apr. 30
Crotalus viridis, Pituophis catenifer deserticola, Sceloporus magister, Bufo boreas, Hyla regilla, Gambelia wislizeni, Xantusia vigilis

Bear Mtn, Kern Co, Mays

Murray's folly, Bear Mtn, 4000'
Cupressus gilberti
Quercus lobata.

R. Zweifel May 30, 1952

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Journal

Bill Brewer and I left Berkeley at 7:20 AM and arrived at Butte Meadows, Butte Co., about 12:30 PM. Both Rana cascadae and Rana boylii aerrii have been recorded from Butte Meadows, so I was particularly anxious to collect here. We spent about two hours at Butte Meadows but could find no Rana. The chief stream of the region, Big Butte Creek, was well over its usual banks and carrying much water. Small streams wandering through the meadows were searched for frogs, as was Big Butte Creek, but only a single Hyla was found. Probably these smaller streams are not permanent.

The weather was warm & sunny, but there were patches of snow in sheltered parts of the forest. Yellow pine, douglas fir, white fir and incense cedar are the dominant trees here. The general aspect of the region is that of the mid-Arid Transition zone.

Jonesville, Butte Co, about 3 miles NE Butte Meadows, is another R. cascadae locality, but here we could find no frogs either. The vegetation here is different, having a higher zone aspect. Lodgepole pine, Jeffrey pine and white fir dominate here, with a very few yellow pine present. It may be that this particular association is

Journal

limited to the meadow margins at Jonesville.

We collected nothing at Jonesville. At Butte Meadows the following were taken: 1 Thamnophis elegans, 2 Gerrhonotus coeruleus, 1 Taricha torosa sierrae, 1 Ensatina eschscholtzii platensis and 1 Hyla regilla. Sceloporus graciosus was abundant

Tonight's camp is near Seneca, on the North Fork of the Feather River, Plumas Co.

May 31, 1952

This morning we worked along the stream for about two hours but could find no frogs. The stream was quit high, and there seemed to be not good tributaries. Rana boylii may not occur in these large streams where there are no small tributaries of appropriate gradient, but it will be necessary to check again when the water is low.

Taricha t. sierrae, Sceloporus graciosus, S. occidentalis and Thamnophis elegans were collected here.

Plants: Big-leaf maple, douglas fir, black oak, dogwood (both creek & pacific), choke cherry, thimble berry, alder, incense cedar, black cottonwood.

Yellow pine present on hillsides, but not in canyon bottom.

Zweifel May 31, 1952
49

Journal

From Seneca we drove to Greenville, Plumas Co., and then to Round Valley Lake, a reservoir a few miles south of Greenville. We had been told that there were "bullfrogs" in the lake, but we didn't find any. 0.6 mi S Greenville we investigated a streamside pond and found in it a large number of Ambystoma macrodactylum larvae. Bullfrogs were present here. This is in the yellow pine - Douglas fir forest.

From Greenville we drove via Greenville to Milford and the south over the divide to East Chance Ck. Rana boylii larvae were found here where the creek flows through a broad, sage-brush covered valley. The nearest trees to the stream are the yellow and Jeffrey pines bordering the valley, at the closest 1/10 mile away. Five adult frogs and 23 juveniles were secured.

We returned to hwy 395 and drove south to camp just south of Carson City.

June 1, 1952

We had hoped to return to over Ebbetts or Carson Pass, but both were closed by snow. In a water-filled meadow at Kyburz Lake near Luther's Pass Eldorado Co., there was a strong chorus

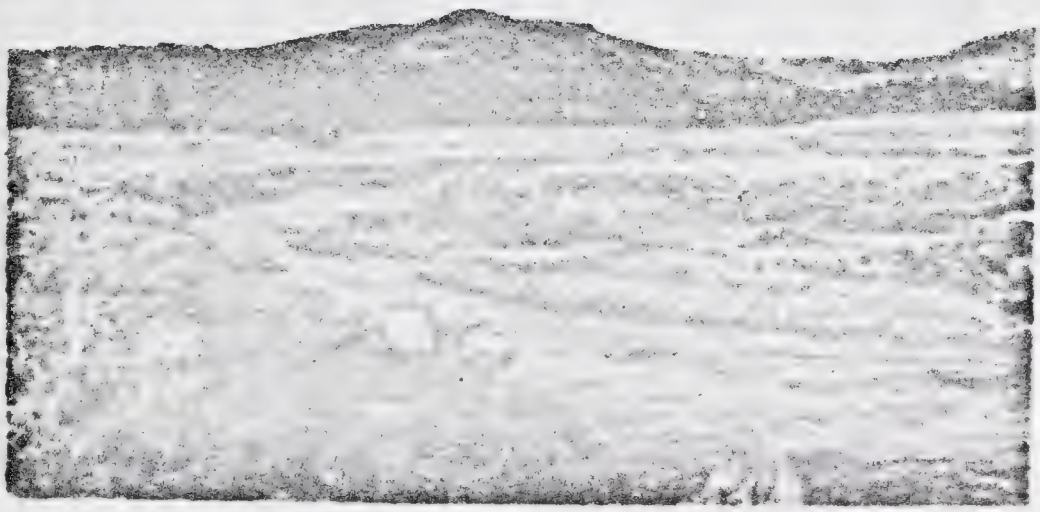
of Hyla regilla at about 9:00 AM, but we could find no Rana. The elevation here is 7750' according to the Auto Club Map (Mono-Stanislaus Outing Map).*

When the road crosses the Upper Truckee River we found a single Rana boylii aerial in a pool beside the swollen stream. Bill found it sitting on a log in the pond.

Driving down highway 50, we stopped several times to look for frogs in the American River but couldn't find any. Coluber constrictor mormon was found in a grassy clearing in the yellow pine forest.

At Webber Lk, 2.7 mi WSW Pleasant, at the yellow pine - digger pine border zone we stopped to collect four Rana b. boylii and a small Clemmys. No further collecting was done on the way back to Berkeley.

* A dor Thamnophis e. elegans was found here beside a snowbank.



5.9 mi W McKessick Peak, Plumas Co, Calif, May 31
Rana b. boylii abandoned home.

Big Meadows, 6500', Calaveras Co, June 15, 1952
Rana boylii source.

Big Meadows, 6500', Calaveras Co, June 15
Rana boylii sierrae
Lodgepole pine and aspen

Camp Connell, 4800', Calaveras Co, June 18
Rana boylii sierrae
Incense-cedar, douglas-fir, yellow pine, sugar pine, black oak, alder.

Zweifel

Snakes collected or observed in the Cuyamaca vicinity, summer 1952

June 16.– Crotalus mitchelli, (Stonewall Pk)
23.– Masticophis lateralis, Thamnophis e. hammondi, (Boulder Ck. vicinity)
26.– 2 Pituophis catenifer (Los Caballos)
, Pituophis catenifer (Paso Picacho)
27.– Masticophis lateralis (Cold stream)
Tamnophis gigas (Paso Picacho)
30.– Pituophis catenifer, Thamnophis e. hammondii (Sweetwater Bridge)
July 3.– Coluber constrictor (Paso Picacho)
6.– Crotalus viridis (Stonewall Pk)
7.– Tamnophis gigas (Sunrise jct)
10.– Coluber constrictor (Paso Picacho)
12.– Pituophis catenifer (Los Caballos)
17.– Thamnophis e. hammondii (Green Valley)
21.– 2 Pituophis catenifer (Cold stream)
25.– Pituophis catenifer (Paso Picacho)
26.– Thamnophis e. hammondii (Descanso)
August 3.– Crotalus viridis (Cold stream)
3.– Pituophis catenifer (Paso Picacho)
4.– Hypsiglena torquata, Salvadora hexalepis (near Descanso)
4.– Tamnophis gigas (near Julian)
5.– Crotalus viridis (Camp Cuyamaca)
5.– Tamnophis gigas (near Descanso)
6.– Crotalus viridis (Cold stream)
6. Tamnophis gigas (Cedar Spr.)

P. Zweifel

Snake list, cont.

August 8. – Pituophis catenifer (Paso Pocacho)
8. – Tamnophis Elegans (Paso Pocacho)
15. – Masticophis lateralis (Paso Pocacho)
16. – Crotalus viridis (Alcan Valley)
16. – Crotalus viridis (Paso Pocacho)
18. – Crotalus viridis (Cayamaca Mt Trail)
21. – Masticophis lateralis (Descanso)
21. – Diadophis amabilis (Middle Peak)
27. – Tamnophis elegans (Middle Peak)
27. – Crotalus viridis (Old Alcan)
28. – Pituophis catenifer (Agua Dulce)

Totals

11 Pituophis catenifer
8 Crotalus viridis
4 Thamnophis e. hammondii
4 Masticophis lateralis
4 Tamnophis elegans
3 Tamnophis gigas
2 Coluber constrictor
1 Salvadora hexalepis
1 Diadophis amabilis
1 Hypsiglena torquata
1 Crotalus mitchelli

40

Butte Co., Calif.

Left Berkeley this morning at 6:30 AM with Dr. Stebbins, drove to Chico reaching there at 10:15 and then on to Butte Meadows. A young striped racer (lateralis) which had eaten a Scaloporus occidentalis was found DOR 10.4 mi by road NE Chico. Digger pine and bay were prominent trees here.

We arrived at Butte Meadows at noon and after lunch looked for frogs along Big Butte Creek but found none. A large Clemmys was seen here.

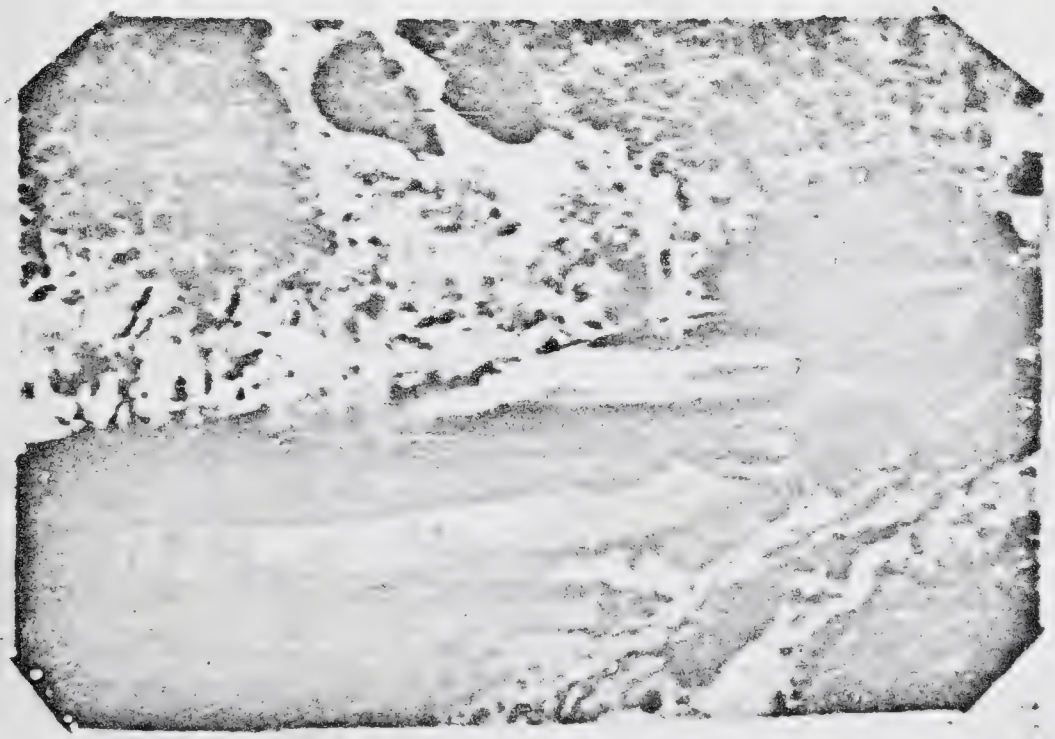
We next drove to Coon Hollow (see species accounts) where we collected 12 Rana aurora aurora and 3 Rana boylii boylii. Dr. Stebbins also found an adult Ambystoma macrodactylum beneath a log by a small stream tributary to the main stream. We returned to Butte Meadows to camp

Oct. 10, 1955

Coon Hollow, Butte Co. (5300')
Rocky stream in stream bed. R.g. cascades nearby

Meadow at Coon Hollow. R.g. cascades in small stream at edge of meadow

1.8 mi. NE De Sabla, Butte Co., Oct. 11, 1952
Habitat of Rana b. boylii



Feather River, 21 mi SW Butte Co. Line, Oct 11, 1952
R. b. boylii juveniles present in pools bordering
mainstream

Species Accounts
1952

R. Zeigler

May 31, 1952

58

Ambystoma macrodactylum

0.6 mi. S Greenville, Plumas Co., Calif.

A series of larvae (total length about mm) was collected from an oily, dirty pool beside a stream. The pool measured about 18' x 12' x 1' deep. Water temperature 21.2°C. This is in the yellow pine, Douglas-fir forest. Alder, black cottonwood and willows are

R. Zweifel Mar. 23, 1952

59

Aneides flavipunctatus

2 mi. NW Calistoga, 610', Napa Co., Calif.

Fifty flavis were found in about 1½ hours of collecting at this locality. About half the number were associated with a fallen digger-pine, either on the rotten logs, under back, or beneath the logs on the ground. The remainder were beneath rocks. Aneides lugubris was greatly outnumbered here, only 12 being found — these too were equally distributed between logs and rocks. On one occasion, 2 lugubris and one flavi were found under the same rock.

The locality of capture is on a ridge trending south-westward into the north end of the Napa valley. The immediate site of collection is a grassy hillside spotted with a few black oaks, manzanita, and digger pine. A single douglas fir is mixed in with oaks and manzanita about 200 yards up the ridge, and about ¼ mile down the ridge there is a homesite surrounded by doug fir and oaks.

Probably before the land was cleared this spot was in the marginal area where the fir forest meets the digger pines.

The temperature at the site of collection in one of the logs was 14.2°C

R. Zweifel

April 12, 1952

60

Aneides flavipunctatus niger

Waddell Creek, Santa Cruz Co., Calif.

1757-62, R. Zweifel

An adult found beneath a piece of log 4'x1'x6" on moist sand in the creek bottom about 100' from the stream. This is about 30' from the vertically cut bank of the oak bottom at the edge of a thick patch of alders. Douglas fir and bay are present about 50 feet away. An adult Taricha was found under an adjacent log

An adult was found beneath a rock in a rocky seep along the roadside.

An adult on rotted wood under a rotten log, temp habitat 12.0°C

A juvenile under a rock 6" from the edge of a small stream (Bessie Creek, see notes on Ensatina)

An adult in a piece of rotten oak log, habitat 10.5°C, 8 feet from Bessie Creek. Add alders here. Two more in similar situation 2-3 feet from the water and three others under the same log as the last two, but right at the edge of the stream.

P. Zweifel

Mar. 23, 1952

61

Aneides lugubris

2 mi. NW Calistoga, 610', Napa Co, Calif.

Four of twelve *lugubris* collected here uttered a mouse-like squeak when handled. This was voluntary on the part of the salamander, and not a physical result of handling, as it was done while the salamander was resting in the open hand.

See species account of *A. flavipunctatus* for habitat data.

R. Zweifel April 12, 1952
62

Dicamptodon ensatus

Waddell Creek, Santa Cruz Co., Calif.

1763 R. Zweifel

A larva about 3" long was seen to swim to the bottom of a 4" deep pool in a small, (3' wide) rapid hillside stream, water temp. 12°C. It was captured. This is called Bessie Creek, according to a sign where it crosses the road. The surrounding vegetation is typical redwood forest. Prominent plants along the stream are sword fern, bracken fern, Oxalis and thimble-berry.

Several other larvae were seen in other pools in this and in another stream.

A. Zweifel April 29, 1963

Eucalia eschscholtzii

Stock Ck, 1500', Kern River Canyon, 18/20 mi ENE
Bakersfield, Kern Co., Calif.

Under a granite rock 1'x6"x6" in a burrow. This agat was about 50 feet from a small cascading stream and 180 yards/feet from the Kern River on a north-facing slope. The surrounding hillsides are rather bare, supporting sagebrush, annual wildflowers and a sparse growth of digger pine. Immediately along the course of the small stream there are interior live oaks, an sycamore and buckeye.

P. Jennings

April 26, 1952 64

Taricha torosa aurita

State Highway 180 at 5000' elev.,
Fresno Co., Calif.

@ 2:45 PM a juvenile was found walking up a mossy bank beside a stream. The mountain slope here is steep - close to 30°. Yellow pine, incense cedar, bay and live oak (Q. wislizeni?) are present, but the presence of many shrubby oaks modifies the Transition-Zone aspect. Keith and Cynthia collected six adults along the side of the road nearby.

Sky cloudy - no sun breaking through. Ground surface temperature where the juvenile was collected 8.6° C.

Zweifel

April 27, 1965

Tularosa Grove sierrae

Camp Wishon, 4000', Tulare Co., Calif.

Lower Transition Zone — yellow pine, incense cedar, canyon oak. Many were taken from a small stream which averaged 3" deep and 18" wide, never more than 6" deep. Water temperature 7.8°C. Most in the water were males, though there was one pair in amplexus. Many more females and a few males were out walking around — this was in the early afternoon, the weather cool, sky cloudy. Body temperatures recorded on 5 such Tularosa were 10.0°, 10.6°, 10.8°, 10.8° and 11.6°C.

R. Zweifel June 23, 1952 66

Taricha torosa

Boulder Ck, 7.5 mi NNW Descanso
San Diego Co. Calif.

Reached here at about 10:00 AM, DST. Two Taricha were taken immediately and several others seen which are out of reach. Here the stream is about 20' wide and, at maximum, 1' deep. This is a relatively still region about 50' long with more rapidly moving water in a rockier streambed at either end. Water temperature 17.0°C

A total of 12 Taricha were collected — 10 ♂s and 2 ♀s for the nature dept. They were very abundant. For example, in the pool from which the last one was collected, there were at once twelve others in sight.

Some of the pools in which Tarichas were seen are 3 feet deep. There is much more water than last year. At this time last year there were places on the streambed with no water at all.

Aug. 25, 1952

Revisited same spot, but no salamanders. Do they wait for the summer thunderstorms to leave the water? There is as much water now as there was in June.

Zoerfel

Oct. 24, 1952

67.

Triturus torosus

Arroyo Seco at Switzer's Camp,
Los Angeles Co, Calif

Pool 8' x 4' x 6" deep. Fed by tiny trickle of water. Two large larvae seen here. Rocky bottom made up of stones 6" diameter. Pool cluttered with alder leaves. About 5' from main stream. Water 18.6°C

Zweifel

Aug 17, 1952

68

Rana aurora cascadae

Lassen Meadows, Lassen Volcanic Natl. Pk.,
Shasta Co., Calif.

6241 R. Stebbins

Adult ♂. When held, the call given is a trepler in contrast to the single "croak" of a ♂ aurora (Sonora Pass) of the same size.

Compared to R. b. aurora from Sonora Pass, these differences are noted:

Eyes of cascadae larger, closer together; mask (faint) and maxillary stripe present; more distinct barring on tibia; inky black dorsal spots.

Zweifel

Rana aurora cascadae

5200 ft
Coon Hollow, 1 mi. S, 5 mi. E Butte Meadows,
Butte Co. Calif.

Oct. 10, 1952

a sub-adult found resting on a branch 6" above the water (branch extending into water) beside a stagnant pool 8' x 5' x 1' deep beside the main stream. The main stream is about 15' wide here, up to 2' deep and fast flowing. Time 1:30 PM. Sun behind cloud.

White fir, lodgepole pine, yellow pine, incense cedar prominent. Sugar pine & red fir present.

Caught another sub-adult in a pool on a small tributary stream a few yards from the main stream. Where it enters the main stream, the tributary is about 5' wide and 1' deep. I followed the tributary up a relatively steep slope about 50 yards to where it opened onto a small (~~400~~ 200 x 30 yds), lodgepole pine bordered meadow. The stream follows the edge of the meadow and averages 2' wide x 1' deep. another small R. a. cascadae was caught in this stream.

(and one ocen)

All together, 12 were captured by Dr. Stebbins & myself. Of this number, only two were in the main stream, the rest in slow tributaries or in isolated pools.

Zweifel

Rana aurora aurora

Coon Hollow, 5300 ft., 1 mi. S., 5 mi. E Butte Meadows, Butte Co., Calif.

Oct. 10, 1952 (2)

The following temperature were taken by Dr. Stebbins:

water of pool 7.3°; air 12.7° 1° above moist sand; sand 9.5°C. (not in stream)

pool 9.1°C. stream 20' away 7.3°C.

soggy meadow, water 15°C at 1:50 PM (newly transformed young and adult).

shallow pool in meadow, 2-3", 19.7°C at 2:00 PM.

leaf laden pool under alders, 20' from main stream 8.1°C (2:15 PM).

similar pool 9.5°C

in main stream, 7.3°C. Air 2" above damp sand 1' from stream 10.3°C.

Rana boylii boylii

9.4 mi. SSE Willets, Mendocino Co., Calif.

1049 W. Riemer. adlt ♀

Dorsal surface of body without obvious markings. Tibia & femur distinctly barred. Light eye stripe very distinct. Throat with dark, vermiform marking, even in light phase. Toe tips light.

R. Zweifel

Mar. 1, 1952 72

Roma Loafer Loafer

1.6 mi (air road) W Elk Lake, Butte Co., Calif

1659 R. Zweifel ad. ♂

Tibial bar present. Slight suggestion of dorsal pattern. Brown dorsally. Dark, vermiform ventral markings.

R. Zweifel Mar. 2, 1952 73

Rana boylii boylii

5.4 mi E, 4.0 mi N Bangor, on Yuba Co, Calif

In the late afternoon, 10 R. boylii were found along the alder-bordered stream (South Honcut Creek) at an altitude of about 1470'. Prominent vegetation on the hillsides consists of yellow pine, manzanita, canyon oak and blue oak. Bay is also present.

The coloration of the frogs was rather diverse. Notes on eight of them follow:

1) adult ♀. — dorsal spotting very diffuse. D-L folds reddish-brown half way back. Dorsal color brown, toe tips brown.

2) young adult ♀. — dorsal spotting present but diffuse. D-L folds brick red. Much of same color on upper surface of fore and hind limbs.

3) adult ♀. — Scarcely any pattern, even on the tibia. Generally light brown over the dorsal surfaces.

4) young adult ♀. — Whole aspect very red. — upper surface of legs, D-L folds and between the folds. Pattern fairly obvious, dark spots on a red background.

R. Zweifel

May. 2, 1952 74

Rana boylii boylii

5) young adult ♂. — red dorsally with brown sides. Dorsal pattern indistinct.

6) adult ♂. — Brown. D-L folds slightly brighter. Pattern obscure on back, less so on tibia

7) young adult ♂. — D-L folds obscure, not differently pigmented from brown ground color. Dorsal spots large - 3mm - almost covering area between folds. No red in coloration.

8) young ♂. — D-L folds brick red. Sides and area between folds dark greenish gray, quite a contrast. Red of folds tends to extend over edge of eyelid and along canthus to tip of nose. Tibial bars obvious but no visible pattern on back.

R. Zweifel

Mar. 29, 1952
75

Rana boylii boylii

11.1 mi SSE Dyerville, Humboldt Co., Calif.

6046-7, R. Stebbins, juveniles

No dorsal pattern evident on body. Hind limbs barred. Throat probably of dark type, but cannot be seen as frogs in light pool. General ground color greenish-gray.

Mar. 29, 1952

6 mi. NW Dyerville, Humboldt Co., Calif.

6052 R. Stebbins, juvenile

No dorsal pattern, tibia barred, throat dark, ventrum. Ground color greenish-gray.

R. Zweifel

Mar. 30, 1952

76

Rana boylii boylii

1 mi. E, 4 mi. S Mt Tamalpais (West Peak)
Frank Valley, Marin Co., Calif.

1234 W. Brainer ad ♂

Only the faintest trace of dorsal pattern,
but bars on hind legs well developed
Throat markings dark, vermiform.

The left eye has a deformed pupil which gives
the eye a cross-eyed appearance

R. Zweifel April 4, 1958 77.

Rana boylii boylii

Arroyo Mocho, 9.5 mi. SE Livermore
Alameda Co. Calif.

8 small frogs were collected and about 20 more seen in a stream which flows into Arroyo Mocho from the north. The stream is 4 feet wide at the widest and one foot deep. The gradient is sufficiently steep that rapids or small waterfalls occur every few feet for much of the course. Water temperature was 19°C.

The eight frogs are generally on dorsal pattern - many faint 2-3 mm spots on greenish-brown background. The spots are slightly darker than the background. Tibial barring is evident.

Dark throat markings are present, but not so well defined as in the north coast frogs.

R. Zweifel April 12, 1952
78

Rana boylii boylii

Waddell Creek, Santa Cruz Co., Calif.
1756 R. Zweifel
A single small juvenile was found, along with an adult R. aurora, in an inches wide trickle of water by the roadside in the redwood – doug fir forest.

Bill Riemer spent much time hunting Taricha along the main stream and saw no Rana boylii, nor did I see any there. The weather was cold and foggy today. Where do the frog go in this sort of weather?

R. Zweifel April 11, 1952
79

Rana boylii boylii

3 mi no Coal, El Dorado Co., Calif.

566-571, fide Norman

One adult ♀ and five young. In light phase no throat pattern is discernable, but on dark phase the pattern of vermiform spots is evident.

The adult female is pale reddish-tan with no pattern discernable on the back. Even the tibial bars are faint. One of the young is very similar to the adult. Two others are darker brown, with contrasting reddish dorsolateral folds but still dorsal pattern. Another is dark greenish-brown with diffuse spotting visible on the back.

R. Jenkins April 27, 1955 80

Pine Log Log

5.5 mi. NW Woodlake, Tulare Co. Calif.

1774, by R. Jenkins

Habitat notes — Small stream, flowing pools not over 3' wide, forking to 5' wide, seldom over 6" deep. Water temperature at 9:15 AM 16.8 °C. Trees along the stream bed are C. wilsonii, C. longleaf, C. libata (uncommon), Sambucus, Populus fremontii, Quercus*. For the most part the stream banks are grassy to the water edge, very little in the way of sandy banks.

Although the stream gradient is not steep, there are many large, angular granite rocks (up to 3' in diameter) in the bed. Stream transport is obviously not responsible — either weathered out in place or rolled downhill

* Quercus not in below present a few hundred yards downstream from where the first frog and flow notes were taken.

R. Zweifel

Rana b. boylii

April 27, 1952.

Camp Wishon, Tulare Co., Calif.

1191 R. Zweifel

Frog on light phase. General dorsal ground
color light tan. About 12 2.5 mm spots
between dorso-lateral folds. Light head band
present but not very evident in light phase
Prominent bars on tibia, femora and foot
Groin & rear surface of femur, yellow
in groin.

R. Zweifel

April 29, 1952
82

Rana boylii boylii

Cow Flat Creek, 1800', Kern River Canyon,
20 mi ENE Bakersfield, Kern Co, Calif.

Five frogs Taken from a small, steep-gradient stream about 150' feet from the Kern River. This stream is more like what I consider *mucosa* habitat — numerous small waterfalls separated by pools 6" – 18" deep. See Dixie notes for general habitat.

Joaquin

Rana boylii boylii

Frogs collected between April 26 and May 1

A total of 30 frogs were obtained at the following localities: 8.5 mi NW Woodlake, Tulare Co. (2); 8.7 mi ENE Springville, Tulare Co. (7); Camp Wishon, Tulare Co. (1); 5 mi ENE Springville, Tulare Co. (5); Cow Flat Creek, Kern River Canyon, Kern Co. (5); Clear Creek, Hobo Hot Springs (1); Caliente Creek, 6 mi ESE Caliente (7); Tehachapi Creek, 6 mi NW Tehachapi (3).

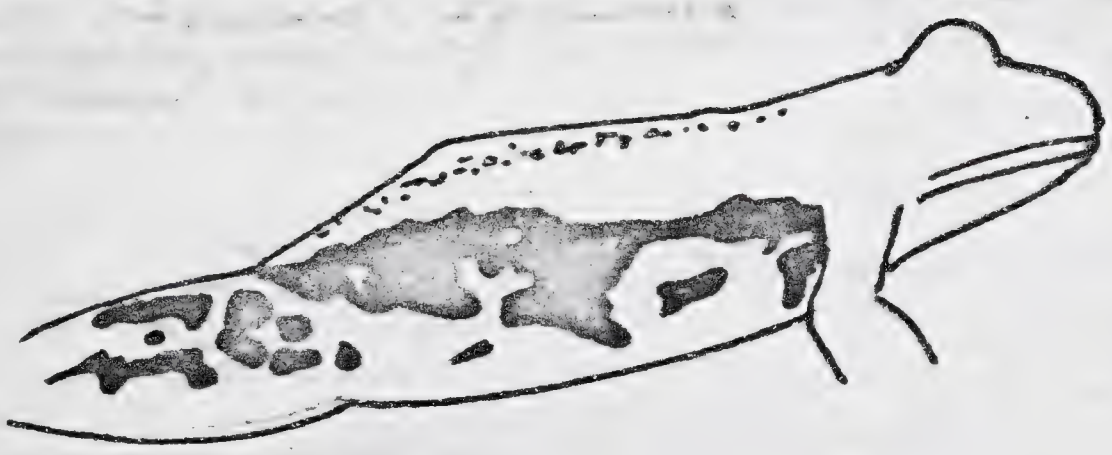
As a group, these frogs are all remarkably similar. When in dark phase, the throat markings are large and dark (see drawing on next page). Dark but diffusely bordered dorsal spots are present and the tibia is distinctly barred. The light head stripe is evident when the frog is in dark phase, but scarcely visible in light phase. There is a wash of yellow in the groin and the back of the femur is orange-yellow. This yellow and yellow-orange is seen in two living frogs from Yuba Co (R. b. boylii) which however have no strong black marking in the groin, as seen in the southern Sierran Frogs (see drawing, next page).

R. Zweifel

84

Rana boylii

Cow Flat Ck., Kern River Canyon,
20 mi ESE Bakersfield
Kern Co, Calif.



R. Zweifel 85

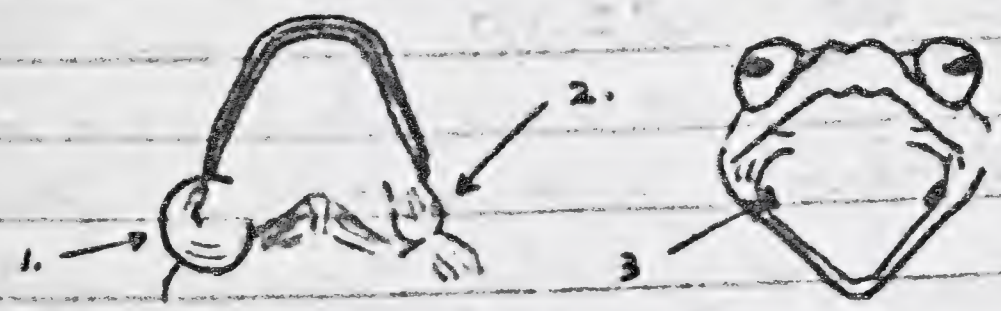
Rana. b. boylii

May 11, 1952

Cow Flat Ck, Kern River Canyon,
20 mi ESE Bakersfield, Kern Co., Calif.

1808 R. Zweifel

Adult ♂, SV 53 mm.



Sketch shows (1) expanded, (2) deflated vocal sacs and (3) opening of vocal sac in skinned specimen. Drawings are natural size.

R. Zweifel May 31, 1952 86

Rana boylii boylii

East Chance Ck, 5.5 mi W McKesick Peak,
Plumas Co., Calif.

Twenty-three juveniles and five adults were taken in about one hour of collecting. This is in a broad, sagebrush-covered valley with yellow and jeffrey pines on the surrounding slopes. The stream averages 15' wide and 3' deep, temperature near edge 20.2°C. The stream banks are for the most part grassy or muddy, with occasional sandy bars. The frogs were not restricted to any particular type of bank. There are no trees bordering the stream here for at least a mile or two up & downstream.

Juveniles were extremely abundant; many more could have been secured. Most adults seen were secured.

Three were very few snake in the stream.

R. Zweifel

Rana boylii boylii

5-3 mi. W McKesick Peak, Plumas Co., Calif.

1

1885, ♂ ♀ 60 mm

Color of groin dorsal & Pale Lemon Yellow. Posterior surface of femur Orange Buff. Yellow of groin region covers much of venter. Throat in dark phase is dark gray with very little trace of discrete markings. There is very little dark color on the chest region.

Dorsally, the light headband is faintly visible. There is only the faintest indication of spotting dorsally. The dorsal surfaces of the hind legs are barred, but the pattern is very faint. D-L folds not differently colored. #1886, 87, 88 agree with 1885. All are ♀♀

1885 - post breeding
1886 - ripe-looking ova, 1.5 mm dia.
1887 - post breeding
1888 - post breeding

1864, ♂. Typical boylii except ova noted when sperm was skimmed for skeletonizing.

R. Zweifel June 1, 1952

Rana boylii boylii

Webber Ck, 2.2 mi WSW Placerville,
El Dorado Co., Calif.

1916-19 ♀ small adult ♂♂

Very little yellow in groin. Venter essentially white. Throat in dark phase with contrasting vermiform markings. D-L folds reddish. Tibial barring strong.

R. Zweifel Oct. 5, 1952 89

Rana boylii boylii

Marsh Ck., 6.3 mi. SE Clayton, Contra Costa Co., Calif.

Since my last visit here, numbers of cattle and horses have invaded the area, with the result that most of the grass and cattails along the stream bank have been trampled. The change in the character of the stream border has affected R. aurora more than R. boylii. 10 adult boylii were taken and young were very numerous. Only four aurora were collected and a few others seen. At one spot there was a pool 4' deep with a little aquatic and riparian vegetation around it. Two large aurora were taken from the pool, and at least two others were present. At the shallow end of the pool there was a sunny, sandy bar on which several adult boylii and numerous young were found. The habitat separation holds, even though the frog were only about 10-12' apart.

Zweifel

Rana boylii boylii

2600'
1.8 mi NE De Sabla, Butte Co., Calif.

Oct. 11, 1952

Stream 11°C, 6-10' wide, 6" deep.
Several Rana seen at stream edge and out in the riffles. Relatively low gradient stream, few large rock - average size perhaps 10". Stream is on ~~sandstone~~ shale bedrock with sand accumulation in quieter places. Air 1" above stream border 15.6°C 9:30 - 10:00 AM.
Incense cedar, alder, white fir, big-leaf maple, douglas-fir, yellow pine, sugar pine, tan oak, black oak

I caught 6 of the frogs seen. Stebbins took

Zweifel 31

Rana boylii boylii

Feather River, 2.1 mi SW Butte Co Line, Butte Co. Calif.

Oct 11, 1952

One juvenile in a pool 6" deep x 10' x 7'; rocky, algae covered bottom; air 1° above edge of pool 14.6°C, water 16°. 2:15 PM, sun not now on pool. Pool about 20' from main stream and connected to it by trickle. Stream bottom rocky, average size 4" diameter.

Incense, doug. fir, manzanita on hillsides.

An adult found in a tiny (1' wide) trickle on the north-facing hillside. Alder, doug-fir, some cedar, vine dogwood, Wood-wardia. Hillside steep, about 30°. Salvins got on Ensatina nearby

U. 6

Rana boylii muscosa

Rana Ck, Palomar Mtn. State Park,
San Diego Co., Calif.

Two adults found sitting on sandy stream bank, water temperature 13.1°C.

10:35 AM, DST. — frog on rock in filtered sunlight, BT 18.0°C, rock surface 20.2, air 1 cm. 20.4.

Another frog in similar situation BT 19.6, water 14.6. Another frog at the same spot had a BT 17.6° about 3 minutes after leaving the water and crawling out on a rock.

R. Zweifel June 1, 1952
93

Rana boylii ssp.

Upper Truckee River 3½ mi ESE Phillips,
El Dorado Co., Calif.

1914. adult ♀

Ventral surface Buff Yellow. This color predominates from forelegs anteriorly back over belly and lower surface of hind limbs except for posterior surface of femur. Throat whitish with reminiscent gray markings

There are only tiny, immature ova present.
Can this frog have bred already?

R. Zweifel

June 15, 1952

94

Rana boylii sierrae

Camp Connell, 4800' Calaveras Co., Calif.

Seven frogs were taken from what I consider an ideal Rana boylii stream. The stream is swift running, averages 12-15' in width and has a few pools up to 2½' deep. Some places where the stream is on bedrock, there are sloping banks of the granite bedrock, on which the frogs were found. At other places they were on the sandy or rocky shores, or on rocks in the stream.

This is an typical Sierran Transition life-Zone forest. Trees present include incense-cedar, Douglas-fir, yellow pine, sugar pine, white fir, black oak and alder.

All exhibited the typical "sierrae-stink" when caught. In some, the yellow of the ventral surface looks very much like that of R. b. boylii, but tends to be evenly distributed over the venter (except the throat), not concentrated in the groin.

R. Zuefle

Jan 15, 1952

95

Rana boylii aurora

Big Meadows, 6500' Plumas Co. Calif

Two of three Rana aurora here were taken. The stream (7.5°C) averages about 30' wide. Quaking aspen and lodgepole pine are the dominants.

Zonyki

Rana boylii aerina

July 24, 1952

1.5 mi SW Sonora Pass, 9100', Tuolumne Co., Calif.

672-57 Joe Gorman

Twelve of these seen alive. All rather similar. Dorsal spots indefinite or small, no strong bars on tibia. A large ♀ is chrome yellow beneath, even to the fore-legs. Throat white with dark spotting.

Perfectly typical aerina

Zweifel Aug 6, 1952 97

Rana boylii aureola

1.5 mi. by trail NW Lodgepole Camp, Sequoia National Park, Tulare Co., Calif.

713 fe Elevation

Tibia barred, d-l fold reddish brown, dark spots 4 mm in diameter or less. Ventral surface yellow. Slight suggestion of a light head band, but indefinite. Toe tips dark. Looks like muscosa, or a little like low elevation boylii of so. Sierras.

R. Zweifel

9

Rana boylii aurora

Coon Hollow, 5300 ft, 1 mi S, 5 mi E Butte Meadows
Butte Co. Calif.

Oct 10, 195

Setting on a rock in a rocky area on the main stream (see species accnt. R. aurora cascadae). Stream here is about 20' wide, 18" Rocks in stream average 2' in diameter.
Time 2:20 PM

Captured two young adults in a pool 15' x 5' x fed by a small trickle of water. A juvenile R. a cascade was taken from the same pool.

Zweifel Oct 21, 1952 99

Rana boylii muscosa

Mill Ck. near B. & Topanga Ck.,
San Gabriel Mts, Los Angeles Co, Calif

Stream average 6' wide - some pools up to 3' deep. No frogs seen in first ½ hour of hunting - finally an adult jumped into the water from a shady gravel bar. No definite pool here. Stream 6" deep, gravel bottom. 12:00 Noon. Water 12.6°C, air 1" above edge of stream 16.2°C.

Alder, sycamore & cottonwood prominent trees. Stream has water step gradient and is close to bedrock. Frog escaped.

12:40 PM - Another adult, ♂, captured under similar circumstances. Stream 4' wide, 10" deep, deeper pool adjacent. This is in a narrow gorge 10' wide with vertical walls of coarse gneiss rising 30-40' on either side. Frog was just seen on a gravel bar. Air at 3' - 20°C; 1" above stream edge, 17.4°C; water 12.6°C.

K. Jaeger Feb. 25, 1952

Cnemidophorus tigris

12 mi. NE Tucson, Arizona, Feb., 1952

Received from Bill Woodin 2-23-52.
SV-98+ mm.

Distal 2/3 of tail light blue, not brilliant. Dorsal ground color brown. Prominent yellow-brown paravertebral and dorso-lateral stripes. Lateral stripes distinct, but paler in color - tan. Very faint spotting throughout the middle and two dorso-lateral fields. In dorsal lateral field there is a single row of large (circa 0.5 mm.) light tan spots. Ventral surface pale blue.

Mar 18, 1952

In a letter of Mar. 15, Bill says that the lizard along with another cnemi popped up from some dirt & dead cactus which he was raking. This was in February.

R. Zweifel May 13, 1950 101

Cnemidophorus tigris

Bodfish Ck, 2 mi ESE Bodfish, Kern Co. Calif.
1816 R. Zweifel
Found April 29 beneath a board on sandy ground just after sunset. See Xantusia vigilis species account (April 30) for general statement as to habitat.

SV length 45 mm. Four brownish-yellow lines (pair vertebral and dorsolateral); a few spots posteriorly in the interspaces; sides with large indefinite spots (1.5 mm), some running together; distal ⅔ of tail blue, not brilliant.

R. Zweifel

April 26, 1952
102

Eumeces gilberti

8.5 mi. NW Woodlake, Tulare Co., Calif.

A few minutes collecting at around 5:30 PM turned up 3 skinks; a juvenile, a sub-adult and an adult. All were found under rocks 40-100 feet from a small stream. The general aspect of this locality is one of grassy, oak-studded hillsides with prominent granite outcroppings. Oaks present include valley oak, interior live oak and blue oak. Willow and cottonwoods are along the stream. Elevation 900'. The oak for the most part do not form a continuous canopy, ~~but~~

R. Zweifel Mar. 29, 1952
103

Eumeces skiltonianus

2 mi. NW Calistoga, Napa Co., Calif.
1732-37, RZ

In tearing apart a rotten digger-pine log on a grassy hillside, four skinks were found coiled up in the slightly moist rotted wood in the interior of the log. Temperatures taken in the wood where the skinks had been (and in one case beneath a skink in situ) were 10.0°C, 7.6°C and 7.6°C again. The lizards were rather sluggish. They were found singly.

Other more active skinks were found in logs and under nearby rocks.

See journal for notes on flora and topography.

H. Zweifel May 30, 1952
104

Ensatina eschscholtzii

Butte Meadows, Butte Co. Calif

Adult lizards collected here are remarkable for their green dorsal body surface. A very small juvenile has the normal brown dorsal band, and a medium sized individual shows some yellowish-green in the region of the dorsal fold, but the adults have what is in at least like two large specimens a bright green dorsal ground color. In the adults, the posterior portion of the head and the nape are gray, contrasting with the green body. The snout is green.

One of these lizards was found under a piece of wood by a small stream. When pursued, the lizard jumped into the stream and swam half way across (the stream was about 4 feet wide and 4" deep) whereupon it dived to the bottom and hid under a rock with only the head and tail protruding. It stayed under water for 3 minutes before sticking its nose above the surface.

Yellow pine, white fir, Douglas-fir and incense cedar are the dominant trees here.

Charhontes coeruleus

Butte Meadows, Butte Co. Calif.

Redgrey color notes capitalized

1869
1869 - adult; S-V 95 mm.

Mid-dorsal area between Legentis Green and Roman Green, shading into Primuline Yellow in the granular scales of the lateral fold.

Nob & top of head Deep Gull Grey, stopping abruptly at the insertion of the forelegs, and starting about one row of temporal scales behind the eye, but extending some distance forward along the supralabials. Anterior head scales (snout region) Yellowish Citrine.

Chin and throat as far back as foreleg insertion white with indefinite gray markings. Ventral scales of body between Naples yellow and Mustard Yellow, deepening to Primuline yellow on the most lateral row. Ventral surface of tail paler than body center near anal opening, becoming grayish white about 5 cm. back.

Dorsal surface of tail anteriorly colored same as body, shading into Dark Gull Grey posteriorly.

1868
1869, sub-adult, S-V. 71 mm

Shows some yellow in lateral fold - next brown. No yellow. Venter white

R. Zweifel

Hesperotettix coerulescens

Butte Meadows, Butte Co., Calif.

(Color notes continued)

1967, juvenile, S.V 39 mm

Dorsal band Avellaneous. Sides of body Clove brown.

R. Zweifel

April 4, 1952

107

Gerhardtia multicarinatus

9 mi ESE Isabel, Alameda Co., Calif.

LOR in shade at side of road, OT 24.6°C

R. Zweifel

Phrynosoma coronatum

Camp Cuyamaca, Cuyamaca Rancho State Park, San Diego County, Calif.

June 30, 1952

A young adult, found in the sun under a live oak at the edge of chaparral, 9:30 AM (DST), at 34.6°C.

R. Zweifel

109

110

Scaloporus occidentalis

Mar 2, 1952

Butte Co., Calif.

Several Scaloporus were found today under cover which probably represents their winter quarters. One adult found beneath a deeply seated board had a B.T. of 4.5°C. This was in a meadow, elev. 2200', at the lower edge of the yellow pine forest. Another adult, BT. 6.5°C, was dug out of a rotten digger pine log.

R. Zweifel

May 1, 1952

110

Sceloporus occidentalis

Caliente Creek, 6 mi. ESE Caliente,
Kern Co., Calif.

The lizard was evidently sound asleep on a boulder at 6:40 PM (DST) after the sun had left the canyon bottom. BT 37.8°C, air 1cm 23.8°C.

R. Zweifel 111

Uta stansburiana hesperis

Feb. 2, 1952

W
Mulholland Dr., 1 mi. ● Topanga
Canyon Road, Los Angeles Co., Calif.

In the Santa Monica Mountains, Uta does not seem to range much to the east of Topanga Canyon, although west of that canyon the lizard is abundant

East of Topanga Canyon, the mountains are composed largely of shales and granidiorites which permits a heavy growth of chaparral, rather completely blanketing the mountains. West of Topanga, there are numerous great sandstone outcrops which break up the chaparral and seem to provide the necessary open area for Uta

R. Zweifel

Xantusia vigilis

Bodfish Creek, 2 mi. ESE Bodfish,
Kern Co., Calif.

Two adults taken this morning, one under a branch on the ground, the other beneath loose bark on an oak stump.

The countryside is general desert like typical digger pine - blue oak association to which has been added juniper, ceanothus and scrubby live oak. The result is a denser physiognomy than typical digger pine - blue oak, but still of rather open aspect - perhaps 50% cover.

R. Zweifel

Arizona elegans eburnata

5.5 mi NE Yaqui Well, San Diego Co., Calif.

1937 R2 June 20, 1950

LOR, 935 PM, DST. BT 27.4°C

2.6 mi W Yaqui Well, San Diego Co. Calif.

LOR 10:30 PM, DST. BT 24.2°C

R. Zavesfed

May 30, 19[illegible]

114

Chemise battles

State Hwy 32, 5 mi. SW junction St. Hwy 36)
Deer Ck, Tehama Co., Calif.

A large adult was found DOR here (not sexed). Prominent trees are white fir, douglas fir, sugar pine, incense cedar and big-leaf maple. Dogwood also present. The road here is about 150 feet from the stream.

R. Zweifel

Chionactis occipitalis annulata

Yagui Pass, 3.4 mi. ENE Yagui Well,
San Diego Co., Calif

1939 RZ — June 20, 1952

LOR, 10:15 PM, DST. BT 26.2°C

0.5 mi E Yagui Well, San Diego Co, Calif

1945 RZ — June 23, 1952

LOR, 9:30 PM, DST. BT 26.0°C

R. Zweifel

Colubrid contracta mormon

Two Peaks Camp, 4800'; Cuyamaca Rancho
State Park, San Diego Co., Calif.
July 3, 1952

1957 RZ

Found under a log in dry grass at
the edge of a meadow bordered by
yellow pine, incense cedar & black oak.

July 10, 1952

Same locality

1959 RZ

Crawling beneath a bunkered bush
on black oak leaf litter at 4:00 PM, PST.

Aug 9, 1952

1959, RZ

Snake (SV- mm) laid 4 eggs today,
measuring 40 x 13 mm to 55 x 13 mm

R. Zweifel

April 21, 1952

117

Coluber lateralis

8.5 mi. NW Woodlake, Tulare Co., Calif.

A young individual, probably a yearling, found under a rock. Most of the snake's body was hidden in what probably was a mouse burrow. See notes on Eumeces gilberti, April 26, for habitat data.

R. Zweifel

April 4, 1952

118

Contia tenuis

6.4 mi ESE Sunol, Alameda Co., Calif.

A juvenile found DOR about 1:00 PM. The spot was about 100 feet from a small stream in a canyon filled with live oak, bay and maple. The surrounding hillsides are grassy.

R. Zweifel

April 12, 19[illegible]

Contia tenuis

Waddell Creek, Santa Cruz Co., Calif.

1764 R. Zweifel

Helen Jordan found a pair of large Contia under bark on a standing, dead oak trunk about 8 - 10 feet above the ground. This is at the edge of a cleared field. Fir oak and bay are present. The thick doug fir and redwood forest does not reach down to the valley floor here. Also at the same spot area she found Thamnophis elegans, Sceloporus occidentalis, Hesperhortus nuticinctus and Hyla regilla and Aneides lugubris. (One of the Contia was captured.)

R. Zweifel

June 22, 1935

120

Crotalus mitchellii

Stonewall Peak, 5700', Cuyamaca Rancho
State Park, San Diego Co., Calif.

When I arrived at Cuyamaca, some of the campers had already captured a baby speckled rattler and were keeping it for me. It was taken June 16 near the summit of Stonewall Peak. This is an area of bare outcrops of quartz diorite. The nearest trees are canyon oaks.

R. Zweifel

April 4, 1952

121

Crotalus viridis oreganus

6.2 mi. ESE Sunol, Alameda Co., Calif.

An adult LOR at 12:15 PM. Road surface 36.5°C, air at 2 cm. 28.4°C. Surrounding hillsides are grassy with oaks on the streamways

2 mi W, 5 1/4 mi S Midway, Alameda Co. Calif.

A yearling LOR at 3:10 PM. Road surface 35.0°C, air at 1 cm 29.0°C. Grassy hillsides. This is on the corral hollow road.

R. Zweifel

Crotalus viridis

April 30, 1952

Isabone Canyon, 2900', 8 mi SW Ricardo,
Kern County, Calif.

In the afternoon a large adult was found crossing the dirt road in the canyon. The dominant plant in the surrounding area is an *Atriplex* which forms cover about 3 feet high. This is a wide, flat, sandy canyon bottom, not exactly where I would have expected this species of rattlesnake.

Tehachapi Creek, 6 mi NW
Tehachapi, Kern Co., Calif.

May 21, 1952

While hunting frogs along the creek in the afternoon, I nearly stepped on a large adult ♀. Fortunately the snake was more frightened than agressive.

R. Zweifel

Feb. 13, 1952

123

Diadophis amabilis

1/4 mi. NW Seaville Lake Dam, San Mateo Co., California

1680 R. Zweifel

Found beneath an oak branch amidst a pile of stone & logs from a fallen live-oak

SV 130 mm

Dorsal - black

Mid-ventral - near Orange saffron, but lighter

Sub-caudal - English red

Belly spotting sparse. Light area on shields upper labials not clearly demarked above. Ventral color up 1, barely touching row 2 except in the extreme anterior region. 15 scale rows anteriorly

Seems to be an amabilis x vandenburgi intergrade, most strongly toward amabilis

R. Zweifel

124

Diadophis amabilis

Tilden Park, Contra Costa Co, Calif.

coll. Helen Jordan

Mid-ventral. — between Capucine Yellow and Mikado Orange, closer to the former

Sub-caudal. — a little deeper than Scarlet

Dorsal. — Alizarin Crimson Black

Belly heavily spotted — 36 on 10 ventrals mid-ventrally. Upper labials 4, 5 & 6 barely touched with orange. Ventral color reaches the second row of dorsal scales only for a distance of about 1 cm on the neck. Elsewhere the scales of the first row are edged posteriorly in gray. Adult.

H. Zweifel

Mar. 29, 1952

Diadophis amabilis

125

2 mi. NW Calistoga, Napa Co., Calif.

976 H. Murray

Mid-ventral. = Cadmium Orange
Sub-caudal. = Scarlet
Dorsal. = Between Iron Gray and Dark Olive-Gray.

Upper labial coloring fairly well defined, but much yellower than in 1740; 41 & 43. Ventral color up 2, but second row touched with gray posteriorly. A good occidentalis x amabilis intergrade.

R. Zweifel 126

Thamnophis ordinoides occidentalis

Mar 23, 1950

½ mi N Skaggs Springs, Sonoma Co., Calif.

1740 R. Zweifel SV 508 mm
Mid-ventral. - between Flame Scarlet and Orange Chrome
Sub-caudal. - between Scarlet and Bright Red
Dorsal. - Close to Dark Olive-Buff

Belly very sparsely spotted. Upper labials with well defined separation between orange and gray. Ventral color up two full dorsal rows the length of the body (2½ on the neck). 11 spots on mid-body ventrals.

1741 R. Zweifel SV 147 mm
Mid-ventral - Orange Buff
Sub-caudal. - between Grenadine Red and English Red
Dorsal. - Dark Mouse Gray

Very sparse ventral spotting. Upper labial color border well defined. Ventral color up two rows. 14 spots or 10 mid-body ventrals.

R. Zweifel 121

Diadophis amabilis occidentalis

Mar. 23, 1932

2.9 mi W Skaggs Springs, Sonoma Co, Calif.

1743 R. Zweifel ♂ 318mm
Mid-ventral - Orange Chrome
Lat-caudal - closest to Scarlet
Dorsal - Dark Olivaceous

Belly spotting sparse, but more than in 1740 or 1741. 25 spots on 10 ventrals at mid-body. Upper labial color border sharp. Ventral color up two dorsals the length of the body.

R. Zweifel

160

Dualgphis amabilis occidentalis

Robinson Ck, 4 mi. S, 1½ mi. W Ukiah,
Mendocino Co., Calif.

RCS
51-149 mm

mid ventral. — near Zinc Orange
subcaudal. — Grenadine Red
mid dorsal. — closest to Blackish mouse gray

ventral color up 2 rows anteriorly, 1½ the rest of the way. Upper lip borders sharply defined, color close to ventral. Ventral spots small but fairly abundant — 228 in a couple 10 ventral section

R. Zweifel

April 1, 1952

129

Diadophis amabilis

2¼ mi. SE Sunol, 600' Alameda Co., Calif.

1744 R. Zweifel, coll. K. Cassie; brought in by Ken Countryman

"In sunny pasture about ankle high at 10 AM, 25 yards from low chaparral bush."

ventral - closest to, but deeper than Capucine Yellow.

sub-caudal. - Grenadine red

dorsal. - Lt between Drab Gray and Dark Olive-Gray.

SV - 266 mm

Ventral color covers 1⅔ dorsal scale rows anteriorly, 1½ posteriorly. Upper lip coloring well defined above but much paler than ventrally. Ventral spots large and well defined, but sparse. Each ventral has a spot at each tip, but otherwise there are only 63 spots on all of the gastrosteges.

R. Zweifel April 5, 1952 130

Diadophis amabilis amabilis

U.C. Campus, Berkeley, Alameda Co., Calif.

1745 R. Zweifel: coll. Ken Countryman

SV - 283 mm

mid-ventral. — Orange
sub-caudal. — between Scarlet and Brazil Red
dorsal. — Olivaceous Black

Ventral color covers 1½ dorsal rows on the anterior ¼ of the body, 1 row the rest of the way. Ventral spots large — 32 on a sample 10 ventral segment at mid-body.
Light coloring of upper labials paler than ventral color. Upper border on labials 4, 5 + 6 is diagonal, slanting toward the rear.

" Back of Bowles Hall, 30 feet west of building in cut grass about 6 feet from bush. Temp. approx. 75° sunny — 3:30 PM "

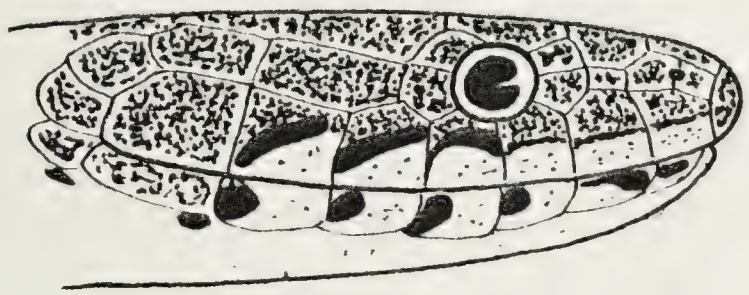
R. Zweifel

Apr. 10, 1952

131

Diadophis amabilis amabilis

1745 R. Zweifel



Note broken nature of upper lip stripe, diagonal bars on labials 5 & 6.

R. Zweifel

April 10, 1952

132

Diadophis amabilis pulchellus

Grapevine Gulch near Vallecito,
Calaveras Co., Calif.

560 Joe Gomez

Mid-ventral. - between Flame Scarlet and Geranium Red

Sub-caudal. - Scarlet

Dorsal. - close to Blackish Mouse Gray

Ventral color covers 3 dorsal rows anteriorly and 2½ at vent. Orange of upper lip sharply bordered above. Neck ring very wide, same color as ventrals. Ventral spotting very coarse - 11 long spots on 10 ventrals.

SV 320 mm.

R. Zweifel April 12, 1952

133

Diadophis amabilis amabilis

Strawberry Canyon, Berkeley, Alameda Co., Calif.

1765 R. Zweifel (collected by Ken Countryman)

"100 yds N of U. of C. Greenhouse about ½ mile East of Stadium. Under 6 foot oak log about 1 ft in diameter. At edge of pasture 25 feet from deer pen. temp about 55° no wind, but overcast. Snake very cold & didn't unroll until warmed by handling."

Med ventral - nearest Orange
Sub caudal - Scarlet
Med dorsal - near Alizarine Black

Ventral color covers the first scale row (except for a black tip on each scale), touching the second row anteriorly. There are also tiny flecks of orange along many other scales of the second row. Neck ring narrow, about same color as a little paler than venter. Very little & diffuse orange on the upper lips. Ventral region very heavy.

SV 284 mm

R. Zweifel April 16, 1952

134

Diadophis amabilis occidentalis

Low Pass Creek, 11.0 mi WNW Montgomery Ck,
Shasta Co., Calif.

Joe Gorman

Med-ventral. — appears between Orange Rufous and Orange Chrome, but there is no Ridgway color very close
Sub-caudal. — Grenadine Red
Dorsal. — darker than Blackish Mouse Gray

Ventral color up 2½ anteriorly, 2 at vent. Orange of upper lip well defined above. Neck ring similar in color to venter. Ventral spotting very sparse — 10 tiny spots on 10 ventrals.

When compared to a living D. a. modestus of similar size, the gray dorsal surface of occidentalis is markedly different from the lavender brown cast of modestus

SV 165 mm

R. Zweifel April 28, 1951 235

Diadophis amabilis

3.3 mi ENE Woody, Kern Co., Calif.

1803 R. Zweifel

Mid ventral. — nearest Orange
Sub caudal. — Pyrrhonic Red
Mid dorsal. — closest to Iron Blue

Ventral color up 2 all body length, but tip of each scale of second row tipped with black. Upper margin of light lip color well defined. Neck ring darker than ventral color. Belly spotting moderately heavy — 3 to 4 spots per ventral.

SV - 244 mm

R. Zweifel April 29, 1952 136

Diadophis amabilis

Cow Flat Creek, 1800', Kern River Canyon,
20 mi ENE Bakersfield, Kern Co., Calif.

After kicking apart a small rock pile, I turned back a moment later to see the snake crawling along beside the rock pile. This was beside a small, steep gradient stream about 150 feet from the Kern River. Sycamores, cottonwoods and interior live oaks are present along the stream course but away from the stream the rocky hillsides are rather barren — grass, scattered live oaks and digger pines.

Also collected at this locality were Batrachoseps, Rana boylii, Crotalus ?. cerberus and Gerrhonotus multi-carinatus.

Mid-ventral. — between Orange & Cadmium orange
Sub caudal. — Scarlet
Dorsal. — closest to Dusky Green-Gray
SV - 302 mm. (note taken just after obtained)
Belly heavily spotted. Ventral color up two dorsal rows. Tips of scales of lowest row tipped with black, those of next row with gray. Upper lip color borders faintly well defined above. Neck ring relatively broad, deeper orange than belly.

R. Zweifel 137

Diadophis amabilis

May 13, 1952

0.2 mi. N Paicines, San Benito Co., Calif.

1860 R. Zweifel (collected by S. K. Carnie)

"... State Highway to Hollister 50 yds S of junction of state highway & Willow Grove School Rd. - W. side of highway (25 yds off) in grassy covered sandy hill slope - some oaks about."

The snake was found near an Annella which was freshly dead. When placed in a sack with the Annella, the Diadophis ate the lizard but later regurgitated it.

Med-ventral. - closest to Orange Chrome, deepening to Flame Scarlet ab 3" in front of the vent

Lat caudal - between Scarlet & Beagle Red

Med-dorsal. - between Dark Olive-Buff and Iron Buff

Ventral color up 1½ rows the length of the body. Orange of supralabials paler than ventral; but fairly well defined above. Neck ring fairly broad, deeper in color than venter. Ventral spotting moderately light.

SV - 322 mm

R. Zweifel May 16, 1952 138

Dialoglis amabilis modestus

Mulholland Drive, 1 mi W Beverly Glen,
Santa Monica Mts, Los Angeles Co, Calif

1766 R. Zweifel (coll Bayard Brattstrom)
coll Mar. 13, 1952

Med. ventral. — Lab mar Cadmium Orange
+ Orange Chrome, but deeper than throat.
Lat ventral. — Grenadine Red.
Dorsal. — Blackish Mouse Grey

Ventral color barely touches first row of
dorsal scales anteriorly. Upper lip color
pale and irregularly bordered above
black ring much deeper than ventro-
mar Grenadine Red. Ventral spotting
moderately heavy.

SV - 187 mm

R. Zweifel

May 17, 1952

139

Eudoxia emilia ventrosa

Mulholland Drive, 1 mi. W. Beverly Hills,
Santa Monica Mts, Los Angeles Co. Calif.

1767 R. Zweifel (coll. B. Brattstrom Mar. 13, 1952)

Med. ventral. — Orange
Lat. ventral — Klondike Red
Dorsal. — closest to Ottawa Black

Ventral color barely touches first dorsal scale row. Belly partially annulated med-ventrally (only 15 spots the whole length) but each ventral bears a heavy dash on each end. Light color of tongue-labial pale - much lighter than venter. Bordered above by line which tends to be curved on each scale - not straight across. Neck ring lighter than venter.

SV 196 mm

R. Zweifel May 17, 1957 140

Diadophis amabilis

Ft Tejon, Kern Co., Calif.

6139 R. Stebbins (coll May 3)

May
Mid ventral. — Orang
Sub-caudal. — Scarlet
Dorsal. — vicinity of Olivaceous Black

Ventral color covers first row of dorsal scales except on the neck where it touches the second. Border of light color on upper labials not straight & sharp. Color pale. Neck ring slightly deeper than ventes. 15 scale rows at mid body Moderate belly spotting.

SV - 308 mm

R. Zweifel May 21, 1952 141

Diadophis amabilis

1 3/4 mi E, 2 mi N Cedar Mtn., Arroyo Mocho, 1500', Alameda Co., Calif.

1339 W. Brewer, coll Apr. 3, 1952

Found in the open beside a small stream in the afternoon.

Mid-ventral. — closest to Orang - slightly paler
Lat-caudal. — Scarlet
Dorsal. — between Castor Gray and Dusky Neon Gray.

SV - 242 mm.

Ventrals color up 2 skins neck region, 2 skins 1½ scales the rest of the way. Belly spotting moderate. Upper lip color border slightly crescents on each labial. Neck ring very slightly deeper than venter.

Color notes taken 1 day after shedded

R. Zweifel

May 24, 1952 142

Liolaemus anabelis

Ft Tejon, Kern Co., Calif.

6140 R. Stebbins, coll May. 3

Mid ventral. — between Capucine Yellow and Orange, closer to the latter
Sub Caudal. — between Alizarin Red and Scarlet.
Dorsal. — Between Blackish Bran-Gray and Dusky Bran Gray

Ventral color up 1½ on neck only, (rest of body. Upper lip color border not deep, tending to be crescentic on each supralabial

Neck ring lighter than venter. Ventral spotting moderate.

SV- 227

Zweifel July, 1952 143

Diadophis amabilis amabilis

Jewel Lake, Tilden Park, Contra Costa Co. Calif

1969 R. Zweifel (coll. M. Stebbins)

Mid ventral. — Cayenne Orange
Sub caudal. — Between Brazil Red & Scarlet
Dorsal. — close to Blackish Slate, but darker

A very heavily pigmented individual. The ventral markings are in the form of complete bars across the posterior edge of each gastrostege. The neck ring is barely visable, and the supralabials are only very slightly touched with light coloring.

Zweifel

Dendroica auduboni similis

San Diego, San Diego Co., Calif

1862 R. Zweifel (from Chuck Shaw)
Mid ventral. - Orange Buff
Sub caudal. - Grenadine Red
(birds freshly shed)

1863 R. Zweifel (from Chuck Shaw)
Mid ventral. - Orange Buff
Sub-Caudal. - ?

1921 R. Zweifel (from Chuck Shaw)
Mid ventral. - closest to Orange Buff, but deeper
Sub caudal. - Scarlet

1922 R. Zweifel (from Chuck Shaw
Mid ventral. - between Orange Buff & Deep Chrome
Sub caudal. - Grenadine Red

R. Zonifer

Diadophis amabilis similis

Middle Peak, 5400', Cuyamaca Ranch
State Park, San Diego Co., Calif.

1967 R2

Aug. 21, 1952

Found crossing a dirt road in yellow pine, white fir, black oak forest at 6:15 PM, just about sunset.

Mid-ventral. — between Capucine Orange & ~~Mikado~~ Orange
Sub caudal. — Scarlet
Dorsal. —— Dark Olive-Grey

Ventral color more sooty, that one gray on upper third. Ventral spotting heavy — 36 on ten ventrals.

R. Zweifel Nov. 29, 1940

Diadophis amabilis amabilis

Oakland, Alameda Co., Calif.

Snake sent in by Mrs. Ernest A. Shamlin,
1137 Sunnyhills Road, Oakland 10. Gl. 1-4779

Following data sent:

1st snake caught about 2 months ago about
half this size and black on back.

2nd snake about 3 weeks ago and coloring
same as first.

3rd was Thanksgiving

4th (this one) caught Nov. 28th.

2nd one vomited whole lizard [Batrachoseps?]
a few minutes after being caught.

All caught by seamese twins

R. Zweifel Mar. 23, 1952

147

Hypsiglena torquata nuchulata

2 mi. NW Calistoga, Napa Co., Calif.

1795 A2

Found in the middle of a rotten digger pine log, elevation 610', on a ridge at the north end of Napa Valley. This is in the area where the digger pines & douglas fir meet without benefit of a yellow pine buffer zone. The exact location is on a grassy slope beside a black oak or an oak, digger pine and manzanita studded hillside. About ¼ mile down the ridge there is a homesite surrounded by douglas fir and oaks, probably indicative of the natural vegetation of this ridge. There is a single, scraggly doug fir 200 yards up the ridge from the snake locality, in the midst of the digger pines and oaks.

On the same 10' x 1' log which held the *Hypsiglena* were one *Diadophis*, 3 *Aneides lagubris* and a small *Gerrhonotus multicarinatus*. Dozens of *Aneides flavipunctatus* were taken from adjacent logs.

Dorsal ground color Drab (Ridgway)
Neck band close to Hessian Brown
Dorsal blotches close to Olive Brown.

R. Zweifel 148

Hypsiglena *torquata* *deserticola*

3.2 mi ENE Yaqui Well, San Diego Co. Calif.

1946 R2 June 23, 1952

LOR 9:45 PM, DST. Road surface 23.5°C, air at 2 cm 22.8°C. Ocotillo present by the roadside.

K. Zweifel

Hypaglena torquata klauberi

2½ mi. NE Descanso, 3800', San Diego Co., Calif.

1961 A2

Aug 2, 1952

Found DSR about 9:00 AM. Rocky foothills covered with heavy chaparral, stream nearby.

R. Jenifer

Sampropeltis getulus californiae

Sentenac Canyon, 1.7 mi. ENE Scissors Crossing,
San Diego Co., Calif.

1934 R.Z. June 20, 1952

Found DOR just before complete darkness.
at 8:30 PM, DST. BT 23.6°C.
Rocky hillside, streamside.

June 26, 1952

Ft. E Pine Ridge Camp, Cuyamaca Rancho
State Park, 4600' San Diego Co., Calif.

1952 RZ

A juvenile, found under a log at 9:30 AM,
at the edge of a clearing (dry grass,
buckwheat) in the yellow pine forest.
(snake is ringed phase)

Aug. 5, 1952

2 mi. WSW Descanso, 3900', San Diego C.

1964 RZ

Found DOR. Chaparral border.

R. Zweifel

Sangropelis ferata gabrita

2mi SE Julian, 4500', San Diego Co, Calif
Aug 2, 1952
1963 R2

DOR. Area is oak forest with a few pines, was burned over two years ago and is barely recovering

Cedar Spring, Cuyamaca Ranch State Park, 5100', San Diego Co, Calif.
Aug 6, 1952

At 11:00 AM, DST, a large adult was seen crawling into a pile of brush where it escaped. Dominant trees here are cottonwood, cedar and black oak.

Pine Ridge Camp, Cuyamaca Ranch State Park, 4800', San Diego Co, Calif
Aug 6, 1952
1965 R2

Active at 7:00 PM (DST), after sunset but before darkness. Tried to hide by burrowing into oak leaf litter. Black oak - jeffrey pine forest.

Middle Peak 5700', Cuyamaca Ranch State Park, San Diego Co, Calif
Aug 27, 1952
1966 R2

DOR in forest bounded by Engelmann oak and white fir.

R. Zweifel 152

Phyllorhynchus decurtatus perkinsi

Yaqui Pass 2.1 mi ENE Yaqui Well,
San Diego Co., Calif.

1938 R.Z. June 20, 1952

LOR at 9:25 PM, DST. B.T. 27.0°C

1949 RZ June 23, 1952

LOR at 10:10 PM, DST. BT 27.2°C

R. Zweifel

Pituophis catenifer annectens

Los Caballos Camp, Cuyamaca Rancho State Park, San Diego Co., Calif.

June 25, 1952

In a grassy meadow in the jeffrey pine forest, I was attracted by the scolding of a pair of meadowlarks. I found two gopher snakes at their nest. One snake, a female, had already eaten at least one young meadowlark and was working on another. The other snake, a male, was ignoring the food but trying to mate with the female. This was about 9:30 AM, DST. Later in the afternoon, in a cage, copulation was accomplished. (continued below)*

Sweetwater River, 4.7 mi. NNE Descanso, San Diego Co., Calif.

June 30, 1952

An adult, found at 10:00 AM (DST) partly on wet mud & partly on a shallow pool. BT 20.8°C, undoubtedly somewhat lowered by the water.

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* Seven eggs were laid on August 31st. Sizes: 65 x 28 mm; 55 x 27; 53 x 29; 58 x 27; 58 x 28; 50 x 29; 44 x 29

P. Zweifel

1952
154

Pituophis catenifer annectens

Cuyamaca State Park

July 21
DOR fresh at mid-day near stream in coulter pine, live oak.

July 25
active at mid-day on a cloudy day. Jeffrey pine - Black oak forest.

Aug 8
Active at mid-day as above.

Aug 28
Found crossing dirt road in lightly Coulter pine forest at 8:10 PM (DST), just after dark.

R. Zweifel 155

Rhinocheilus l. lecontei

2.1 mi ENE Banner, San Diego Co., Calif.

1956 RZ June 30, 1952

11

Found alive on the road at 10:15 PM, DST.
BT 24.6°C. Rather bright moonlight—
3/4 moon.

R. Zweifel

156

Salvadora hexalepis virgultea

2½ mi NE Descanso, 3500', San Diego Co., Calif.

1962 R. Zweifel Aug. 2, 1952

Found DOR (still moving) at 9:00 AM. Rocky foothills covered with thick chaparral, stream nearby.

R. Zweifel

April 28, 1952

157

Thamnophis elegans couchii

3.3 mi ENE Woody, Kern Co., Calif.

1803 R. Zweifel

Found beneath a stump about 100 yards from a stream. The snake was coiled in a pocket in the base of the stump. BT 15°C

203833